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the Sea Swallow

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OF THE ROYAL NAVAL
BIRD WATCHING SOCIETY

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ROYAL NAVAL BIRD WATCHING SOCIETY
(Affiliated to the British Trust for Ornithology)

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1962

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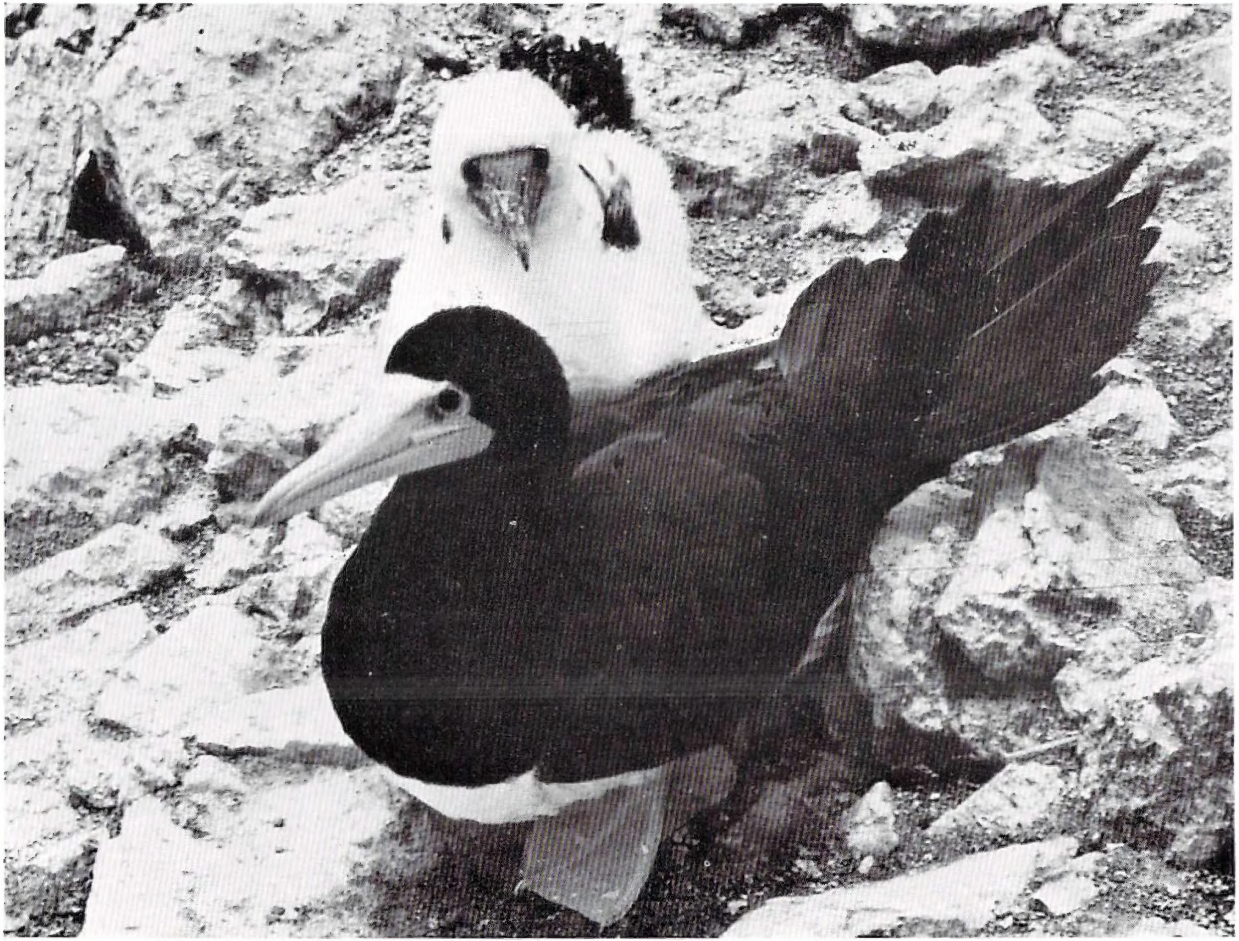
* It is regretted that the map submitted with this article was found unsuitable for reproduction to size of Annual Report.



FOREWORD

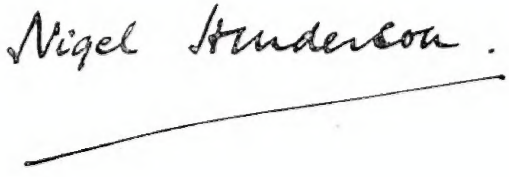
At the conclusion of my first year as your President I would like to congratulate all members on the valuable surveys of bird populations in unexpected areas and sea reports which have been received. It has been a year of exceptional opportunity and progress.

The production of Captain Harrison's 'Sea Birds of the South Pacific,' under the auspices of R.N.B.W.S., is a new step forward in our endeavours. The book has not been published in the open market and will not be found in bookshops. For this reason members can do a most useful service by introducing the book to their shipmates and elsewhere.

His Royal Highness The Duke of Edinburgh has paid a tribute to our Society for some share in the arrangement of his delightful book 'Birds from Britannia,' particularly for the help given by our Chairman, Captain G. S. Tuck, and for the excellent illustrated plates undertaken by Commander A. M. Hughes. We owe a special debt of gratitude to Dr. W. R. P. Bourne, and Dr. M. C. Radford for so much time given to detailed scrutiny of members' sea report sheets, and to the very valuable observations on these reports. As Dr. Bourne remarks, much of the statistical detail needs further study and research, and cannot be published within the compass of *Sea Swallow*.

I believe also that *Sea Swallow* would lose much of its attraction if the refreshing notes and articles that we receive from members were given second place.

I wish all members interesting and rewarding birdwatching in the forthcoming year.



Admiralty House,
Mount Wise,
Plymouth.

November 1962

EDITORIAL

STATE OF THE SOCIETY

Seventeen new members have joined since the publication of our last report bringing our total membership up to 256. We are also delighted to be able to report that our President has been appointed Naval Commander-in-Chief, Plymouth, from November 1962.

It has been pleasing to receive such an interesting and varied collection of notes and report forms from so many different members during the course of the year. No matter whether this has resulted in but a single report sheet, or a long and detailed survey over a period of time, the sum total reflects the great and increasing interest in our work being maintained by members.

SEA SWALLOW

Unfortunately all this material, while it will ultimately be of great value in building up our knowledge of the pattern of sea and land-bird distribution over the oceans, cannot be published within the compass of *Sea Swallow*. It seems unlikely that such large quantities of raw data will be interesting to members before it has been submitted to detailed analysis to reveal the general pattern of the results, while we cannot afford the space in any case.

This year I have decided to give greater space to supporting narratives rather than statistical details and have omitted the full report of observations of land-birds owing to its size. Results gained from statistical data will be published when enough material has accumulated to permit definite conclusions; meanwhile we welcome more of their own contributions from members. We should like to call attention to the way in which these have increased in numbers, quality, and variety over the years.

THE SEA REPORTS

Time no longer permits me to acknowledge every report received personally. I am sure that members will understand that as the flow of reports continues to increase it becomes difficult to comment on each one in detail unless special points or requests for information arise. Every report remains most welcome, and I would particularly like to thank members for their interesting and encouraging letters.

At the time of going to press and since publication of our last Annual Report, forty-five separate passage reports for sea-birds and thirty-two passage reports for land birds have been received. Several of these covered a number of voyages. In addition to these, special mention must be made of the composite reports of particular value received from Lieut. Morris, R.N., and Commander Willis, R.N.R., and reported on by Dr. Bourne in this issue.

REPORTS OF BIRDS EXAMINED IN THE HAND

Nineteen reports of land birds and eleven of sea birds examined in the hand have been received. These have continued to make it possible to identify difficult species with a precision impossible in the past, and members are urged to continue and extend this study, remembering that stray feathers and photographs may help greatly if they

can be attached to the forms. It helps if the forms can be filled in with as much detail as possible, and if *each form can be returned in duplicate.*

SPECIMENS

Excellent skins of the Least Storm-petrel *(Halocyptena microsoma)*, the Yellow-billed Cuckoo *(Coccyzus americanus)* and the Northern Water Thrush *(Seiurus novaboracensis)* have been received from Captain W. A. Kennedy, s.s. "Tuscania," and forwarded to the British Museum (Natural History). Two other land-bird skins, a Barn Swallow *(Hirundo rustica)* and a Caribbaean Elaenia *(Elaenia martinica)* were also gratefully received.

CENSUS SHEETS—SEA BIRDS

The new Census Sheet—Sea Birds was issued for trial in 1962 as an alternative to the standard Sea Report Sheet for the use of observers making large series of regular observations. Its purpose is to provide for the Ocean Plot information showing the number and abundance of different species of sea birds observed over set periods of observation, without requiring every single observation to be entered separately.

Several experienced observers have reported favourably, and their returns have certainly been a model of clarity and detail. However, there are evidently occasions when the census sheet is not an adequate substitute for the standard report sheet. Present experience suggests that the census sheet is most useful on routes carrying a high concentration of sea birds and shipping (and where considerable information for each species is already available) but where details of quantitative distribution now requires study. This form is less useful where smaller numbers of observations are obtained, when the standard Sea Report Sheets still remain preferable. The effective use of the census sheets also requires much care and experience in observation, and it would probably be as well if new, inexperienced and less active members kept to the standard report. Further trials and comments from members will be very welcome.

STUDIES OF THE QUANTITATIVE DISTRIBUTION OF SEA BIRDS

We consider that the time has now come to recommend to more experienced members that they should select an individual species and concentrate upon quantitative counts of this species, particularly along sea routes which members cover regularly. The Census Sheet is admirably fitted for this purpose, and there is a growing pile of past notes waiting for analysis in the Bird Room at the British Museum (Natural History).

Examples of the information we may obtain in this way are beginning to come to light through the work of Captain E. F. Aikman and Second Officer M. E. Jones quoted in this issue.

CONTACTS WITH OTHER SOCIETIES

We were glad to receive news of the formation of the Malta Ornithological Society earlier this year. Although our own field of observations unfortunately does not allow observers in passing ships to stop engines and form an ornithological blockade of Malta (!) we

can assure the Society that we shall be glad to co-operate and exchange information. The Honorary President is Dr. de Lucca who has given his expert advice to a number of our members from time to time. The Honorary Secretary is Mr. Dominic Catajar, with headquarters at 85 Tonna St. Sliema, Malta. It is hoped that members visiting Malta will call on the Society.

Contact has been maintained with the National Institute for Oceanography, and the reports of Commander Willis and Lieutenant Morris among other members on the Arabian Sea and Indian Ocean have been placed at its disposal. They are being studied by Mr. Roger Bailey during the course of preparation for his participation in an oceanographic survey voyage next year.

Information has also been exchanged with C.S.I.R.O. (Wildlife section) Australia, the N.S.W. Albatross Study Group, The Dominion Museum, Wellington, New Zealand, and other Ornithological Societies at home and abroad.

LECTURES AND BROADCASTS

Captain P. P. O. Harrison gave a live television broadcast on his experiences birdwatching at sea in the "Day by Day" programme on Southern Television on Tuesday, 31st July. An illustrated talk on oceanic birds was given by Captain Tuck to the Victoria League for Commonwealth Friendship earlier in the same month. Dr. Bourne gave a review of past work on the biology of birds at sea at the XIIIth. International Ornithological Congress in America in June.

PUBLICATIONS

During the year the Society was invited to assist in some measure in the production of the Duke of Edinburgh's delightful book of photographs of sea birds "Birds from Britannia," for which Commander A. M. Hughes prepared the excellent illustrations.

All members should also know by now of the production of Captain Harrison's handbook "Sea Birds of the South Pacific, a handbook for passengers and seafarers," and I hope that many members have also bought it! What members will not know, however, is that its publication by R.N.B.W.S. could not have been possible were it not for the generous initial financial assistance from the New Zealand Shipping Company. We wish to take this opportunity of extending our most sincere thanks to the Directors for their generous and encouraging support.

SEA PASSAGE BIRD LISTS

Revised and improved editions of these lists are in the course of preparation, and will be produced as handy pocket-sized pamphlets, bound with a stiffer outer paper cover.

ACKNOWLEDGMENTS

We acknowledge with grateful thanks a kind donation of three guineas towards the work of R.N.B.W.S. sent by James A. Sinclair and Co. Ltd., 3 Whitehall, London, S.W.1, specialists in photographic materials and binoculars.

G. S. TUCK,
Editor.

OBSERVATIONS OF SEA BIRDS

By W. R. P. Bourne and M. C. Radford

INTRODUCTION

SEA REPORTS

Since the last number of *Sea Swallow* went to press Captain Tuck has passed on to us new observations by some twenty-six people, including eight new names, Apprentice N. G. Cheshire, Radio Officer T. N. Guina, Chief Officer K. D. A. Lamb, Chief Engineer L. J. Macinnes, Lieutenant R. Morris, Radio Officer I W. G. Peachey, Captain W. E. Williams and Captain D. Stam. All the reinforcements have produced variable quantities of careful, detailed notes which are very welcome; Lt. Morris and Captain Stam clearly immediately take places among our best and most competent observers.

The new contributions include notes from the North Atlantic area by Captains A. J. F. Colquhoun, W. N. H. Jarvis and W. A. Kennedy, Chief Officer Lamb, Mr. Richard Stackpole and Cdr. R. Walgate. Lt. M. B. Casement, Captains A. B. Davies and J. S. Landers, Radio Officer Guina and Chief Engineer Macinnes sent notes covering voyages extending on to the Persian Gulf, and Captain C. C. Atkinson, Lt.-Cdr. E. G. May and Captain Williams notes covering voyages round Africa, the first supplying many new notes on the rich bird community of the area of upwelling off S.W. Africa which has rarely received attention from anyone, and the second passing on a report of a dead Flamingo on the S.W. beach of Socotra on 30th March, 1962, doubtless the first for that little known island. R.O.I Peachey made some notes in harbour at Malta.

Further afield, Captain J. B. Mitchell has produced his usual choice collection of observations from the least-known parts of the Indian Ocean and South China Sea, and Chief Officer T. F. S. Fripp has also started collecting notes in the East Indies area. Radio Officer E. J. Doyle also collected scattered observations in different parts of the Pacific, while Mr. A. Semple collected notes during several voyages between Britain, Canada, Australia and New Zealand. Some of the notes collected by Lt. D. C. Springall and Lt. Roger Morris during *Protector's* cruise up the west coast of South America have already been summarised in *Sea Swallow* last year.

Some of these observers produced more notes than others, and some are more experienced than others, but in general the standard of contributions is now fairly uniformly high in contrast to some earlier years, most people now recording details of the weather, air and water temperatures, and the behaviour of the birds, and providing details, sketches and often photographs to support their identifications. Congratulations seem due all round once more. We are rather sorry that so many of the best of these notes arrived in 1962, so that we cannot treat them this year.

In addition to the main bulk of observations quoted above, six series of notes seem so good that they deserve special mention. These are a summary of some ten years' observations in the Arabian Sea area by Cdr. G. S. Willis, a long series of notes from six months' tour of the Pacific by Lt. Ben King, U.S.N., detailed notes compiled during surveying voyages in the South Atlantic and Indian Ocean by Lt. R. Morris, Mr. Stephen Chapman's notes from regular North Atlantic crossings between Britain and Canada, the notes made by Captain

P. P. O. Harrison and his Officers on regular voyages between Britain and either Syria or the Persian Gulf via the Mediterranean, and Captain D. Stam's regular notes from West Africa.

Both Lt. Morris' and Cdr. Willis' notes are so valuable that they have been passed straight on to Mr. Roger Bailey to provide preliminary briefing for the National Institute for Oceanography expedition to the Arabian Sea next year. We are considering how to arrange for the publication of Commander Willis' notes at length. We hope that when he has a comparable series of observations Lt. King will see his material gets published as well. Examples of Lt. Morris' work are provided in *Sea Swallow* both last year and this, and we wish that others would copy him as well. The last three authors, and also Captain Aikman in his summary of storm-petrel observations published elsewhere in *Sea Swallow* this year, are helping to demonstrate that once the birds occurring in any sea area are established (which usually has to be done in the first instance by collecting, though we hope our bird-in-hand forms will help to avoid this), the finer details of their distribution can only be discovered by the patient collection of a really large series of observations at all seasons of the year afterwards.

CENSUSES

The most recent series of observations include the first five sets of Sea Census Sheets from Chief Officers W. P. Crone and T. F. S. Fripp and Captains W. N. H. Jarvis and P. P. O. Harrison. These immediately make it clear that while the old type of sea report form is still useful for recording isolated observations, the new ones have numerous advantages for larger and more regular series of notes. The table on one side of the form makes it clearer where, when, and for how long observations were made, and quite how many birds of what species were seen during the course of each period of observation. The systematic list of observations and comments for each species on the back of the forms makes it much easier to see how it was identified, what it was doing, and whether anything remarkable was seen. Now that increasing numbers of people have begun sending in increasing volumes of useful observations it was becoming an intolerable task sorting the old forms (as it must have been to fill them in); we hope that the new ones will simplify matters for people dealing with large volumes of observations.

FUTURE POLICY

Finally, as we leave the first phase of the work of the Society in bringing together a group of observers interested in sea birds, and devising easy means of maintaining a permanent record of their observations, to enter a new era in which we attempt to count and work out the detailed distribution of the birds of increasingly well-known seas, it seems useful to try and reassess the objects of all these exercises. Captain Tuck and Lt.-Cdr. Maclure's work in organising the collection of notes, and Cdr. Hamond and Lt. Wain's industry in plotting the outstanding results on maps, have resulted in the accumulation by the Society of a substantial body of direct observations of the occurrence of sea birds in most parts of the world at most times of year. Members like Lt. Morris are also beginning to produce an increasing number of careful objective accounts of the situation at different breeding-places which supplement the work at sea perfectly. The next important problem is the organisation of proper means of utilising this material.

Since several members have already questioned us about this, it seems time to set out ideas on this in more detail.

So far, the main result of this work has been the preparation of a series of increasingly accurate sea passage lists to serve as a rough guide to the birds likely to be met on the main shipping routes, and finally this year a handbook by Captain Harrison describing the birds most likely to be met between Panama and New Zealand. These guides should assist greatly in what must be the main task for anyone interested in sea birds at the present time, the collection of larger quantities of more accurate information about the status of sea birds in different parts of the world.

As the main problems in the identification of sea birds and recording observations on them are gradually solved, the problem of the best way to use the notes which are being collected in increasing quantities is becoming an increasingly urgent one. For two years now we have picked over the annual harvest of notes, sorted out some of the more interesting or obscure observations for comment, and passed remarks about them. In the process it has become painfully clear that the procedure of plotting observations by seasons on a worldwide basis and commenting on a few outstanding points in *Sea Swallow* practised so far by the Society is no more than a small first step in the exploitation of the notes which are beginning to accumulate, which deserve treatment in a much more detailed way, in the case of sea birds of the sort applied by Professor Wynne-Edwards in his classic paper on sea bird distribution in the North Atlantic (Proc. Boston Nat. Hist. Soc. 40: 233–346; W.R.P.B. could lend a copy to anyone interested).

This will involve such operations as plotting all back notes for different species and different areas on a month-by-month basis on large-scale maps, and studying all the incidental comments on behaviour and appearance carefully, and summarising them. This type of analysis is too complicated for the present resources of the Society (which are perfectly adequate for its own purposes, but hardly capable of undertaking research on this scale), and if full justice is to be done to the material collected with such care by the members and officers of the Society, outside help is going to be required in making use of the results.

It is therefore gratifying to observe that as the back notes collected by the Society accumulate, people are also beginning to come forward to analyse them in different ways. Professor Voous of Amsterdam has already published a note on birds of prey catching storm-petrels utilising some observations by members of the Society, and a number of other people have also consulted the records. The largest volume refer to the North Atlantic, but this is a well-known area now, which no longer requires general exploration so much as detailed study of the type demonstrated later in this number of *Sea Swallow* by Captain Aikman and 2nd Officer Jones. It is to be hoped that more members and others will come forward like Aikman and Jones to carry out analyses of the distribution of other species in this and other areas using not only their own records but all our back records put together.

After the North Atlantic the next largest volume of our notes refers to the Arabian Sea, and the situation is rather different here. Extremely little was known about the sea birds of this area until an increasing number of the sailors visiting the Persian Gulf began to develop an interest in birds very recently. The members of the R.N.B.W.S. in particular have now produced a formidable accumulation

of back notes in urgent need of detailed study and analysis to work out the basic pattern of sea-bird distribution in the area. We devoutly hope that now the National Institute for Oceanography has taken the step of appointing an ornithologist to their expedition to this area next year, the opportunity will be taken to make a proper study of our and other records for the area at the same time, clear up the status of all sea birds in this area, and explore the ways in which observations of sea birds can be related to other work on the biology of the sea. If this operation is a success, it is to be hoped that facilities will somehow be forthcoming to develop this type of research permanently on a world-wide scale afterwards, and thus place the study of sea birds on a much more solid basis than it enjoys today.

VISITS TO BREEDING STATIONS

In addition to an analysis of storm-petrel and kittiwake distribution by Captain Aikman, and Second Officer Jones, this issue of *Sea Swallow* also contains a series of model accounts of visits to sea-bird breeding colonies by Lt. Morris, Lt. Teesdale, Captain Leslie, and Surgeon Lt. Mackinnon. All these members have had the opportunity to visit places rarely accessible to any other ornithologists, and have made good use of them. It seems worth trying to summarise the ways in which the best use can be made of such priceless opportunities to get to know sea birds.

In the first place, the date and duration of visits to breeding places should always be recorded (it is strange how people tend to leave this out), and the precise position, character, and means of access of the site. All species of birds present should be sought out and carefully identified, searching carefully through all accessible holes and vegetation in the process (it is surprising how often birds like storm-petrels are overlooked). An attempt should be made to map the place, plot the distribution of breeding birds carefully, and assess the numbers in each colony, for comparison on subsequent visits. During short visits an attempt should be made to assess the proportion of each species which are breeding, and of these the number occupied with each stage of the breeding cycle, including loafing immaturity, prospecting, courting, nest-building, laying, incubating (if an egg should get broken, note the stage of incubation), hatching, and with young of different sizes, length and measurements plus feather development.

During longer visits, an attempt should be made to assess as closely as possible the time of onset and duration of each stage of the breeding cycle. A special attempt should in any case always be made to estimate the time of onset of some key event in the cycle such as laying, hatching or fledging for comparison with other breeding places where it may differ. Careful descriptions should be made of the old birds and young at all stages of development, with measurements at all ages, noting especially the colour of soft parts. Food brought in or vomited should be recorded, and any signs of mortality, with its cause. Where birds lay several eggs, the number in a fairly large series of nests should be recorded, and where all do not hatch, or all chicks do not grow up, the stage at which they come to grief, and how many survive. Finally, birds should be examined for rings wherever possible here as anywhere else, and ringed where rings are available. If members visiting remote sea-bird colonies can manage to make a few notes of just a few of these points, they may be able to collect a great deal of very valuable information in a very short time.

NOTES ON SEA REPORTS RECEIVED DURING 1961

These notes cover sea reports *received* during 1961 from the following nineteen people, hereafter referred to by their initials:—

Ch. Off. J. H. Agnew. M.S. Gloucester. 8 pages.

Captain C. C. Atkinson. S.S. Clan Ross. 7 pages.

Lt. M. B. Casement. H.M.S. Centaur. 8 pages.

Mr. Stephen Chapman. S.S. Birmingham City. 28 pages.

Captain A. J. F. Colquhoun. M.V. Egidia. 5 pages.

Captain A. B. Davies. S.S. Mandasor. 7 pages.

Radio Off. E. J. Doyle. S.S. Cape Wrath. 6 pages.

Lt. Cdr. D. F. Fieldhouse. H.M.S. Crossbow. 30 pages.

Captain W. L. N. Fisken. S.S. British Signal. 2 pages

Ch. Off. T. F. S. Fripp. S.S. Halia. 10 pages. .

Captain P. P. O. Harrison and 3rd Off. J. Gill. S.S. Kent. 253 pages.

Captain W. N. H. Jarvis. M.S. Regent Springbok. 4 pages.

Captain W. A. Kennedy. R.M.S. Paraguay. 12 pages.

Cadet P. H. King. S.S. British Gunner. 2 pages.

Captain J. B. Mitchell. M.V. Yewbank. 4 pages.

Mr. A. Semple. M.V. Port Nelson. 8 pages.

Lt. D. C. Springall and the Officers of H.M.S. Protector. 19 pages.

Lt. Cdr. R. Stackpole and Cdr. R. Walgate. S.S. Empress of Canada. 4 pages.

Captain D. Stam. S.S. Joseph Frerin. 2 pages.

In addition to the 419 pages of notes from some sixty voyages by these nineteen observers quoted here, a further 95 pages of notes for another ten voyages were received from five of these observers, S.C., W.L.N.F., P.P.O.H., W.A.K. and D.S., and two others, Captain J. S. Landers and Lt. B. F. King, which unfortunately were filed with 1962 notes and have only been located as this report goes to press, so that they will have to be discussed next year. Thus the grand total involves the same number of observers as last year, twenty-one, but the number of pages of notes received has risen from about 303 to 514, and the number of voyages from about fifty to about seventy, an impressive advance. Much of this progress has been contributed by Captain Harrison and his Officers, who decided to surpass their all-time record of 103 pages of notes last year, more than half as much as everyone else put together, by producing 288 pages this year, now more than everyone else combined, but the number of pages of notes received from other people has also risen from about 200 to 226 as well, also gratifying progress. The quality of the notes has also continued to improve markedly, so it is a pleasure to be able to congratulate members on another successful year.

We are not attempting any very elaborate notes on species this year, because we covered a great deal of ground last year, and some of the best notes also came in late in the year and have had to be held over until next time. It is clear that next year is going to be a completely outstanding one, and we hope to be able to present a very much

larger volume of material then. Indeed, it is already becoming clear that with the steady increase in the volume and quality of the notes sent in it is becoming a proportionately difficult and arduous task sorting the observations. Therefore we would like to exhort contributors not so much to relax their efforts to increase the number and quality of observations which they collect, as to devote as much attention as possible to recording them in the most clear and concise possible way. Where there are only a few observations they should be entered on the old Sea Report Sheets; where there are larger numbers it would help greatly if they could be summarised on the new Sea Census Sheets.

NOTES ON SPECIES

PENGUINS *(SPHENISCIDAE)*

No important records, though among other occurrences T.F.S.F. and D.C.S. report Magellan Penguins *(Spheniscus magellanicus)* at 34°12′S, 52°48′W. and 46°52′S., 75°25′W. on opposite sides of southern South America on 28th September and 24th November, 1960, and C.C.A. reports rafts of Jackass Penguins *(Spheniscus demersus)* approaching Cape Town on 3rd March, 1961.

ALBATROSSES *(DIOMEDEIDAE)*

Wandering and Royal Albatrosses *(Diomedea exulans* and *D. epomorpha)*. Only Wandering Albatrosses have been reported again, though surely some members must have seen Royals as well? In general, most Wanderers breed far south, and immature birds and non-breeders disperse very widely at sea farther north, so that this is the common big albatross out at sea in the south. The Royal breeds in large numbers in lower latitudes at the New Zealand subantarctic islands, and disperses at sea all round the world in these latitudes, apparently keeping much more to coastal waters so that like the Shy Albatross it is much more likely to be seen offshore. According to a recent note by Westerskov Royals can often be told from Wanderers in the air because they bend the tip of the wing back in flight, though this still requires independent confirmation. When are we going to get some notes of Royals?

Some records of "Wanderers" come from 22°S. 13°30′E. off S.W. Africa on 8th July, 1960 (C.C.A.), 29°38′S., 31°44′E. off S.E. Africa on 5th August, 1960 (P.H.K.), 28°24′S., 98°28′E. as a final view when leaving West Australia for Aden on 18th September, 1960 (J.H.A.), a number in the Great Australian Bight, one first seen at 35°S., 173°44′W. when approaching New Zealand from the N.E. on 9th May, 1961 (E.J.D.), a first record at 29°12′S., 172°33′W. in this area on 19th November, 1960 (A.S.), and records from Valparaiso south on 17th February, 1961 (W.A.K.) on the west side of South America, and 27°44′S., 44°W. south on 26th September, 1960 (T.F.S.F.) on the east side. However, the growing number of records of species like this one will only really receive justice when enough have accumulated to make it worth presenting them plotted on a map.

Waved Albatross *(Diomedea irrorata)*. Seen from "Protector" at 11°S., 78°W. on 4th November, 1960 (D.C.S.).

Black-browed Albatross *(Diomedea melanophris)*. Numbers of records from the Great Australian Bight, and seen north off west Australia to 24°S., 113°E. on 19th June, 1961 (E.J.D.). More seen off the west coast of South America by "Protector" in November 1960 (D.C.S.), where it was reported north to 14°10′S., 74°W. by W.A.K. on 26th February, 1961. Numerous other records from further south in the Southern Ocean.

Shy Albatross *(Diomedea cauta)*. Reported between Cape Town and East London, South Africa, by C.C.A. on 4th March, 1961, where non-breeders occur in large numbers offshore, and again from the vicinity of the breeding area around Tasmania by A.S. on 18th February, 1961.

Yellow-nosed Albatross *(Diomedea chlororhynchos)*. Most easterly

record off Newcastle, Tasmania, on 18th February, 1961 (A.S.), occurring north to 24°S., 112°59′E. off West Australia on 19th June, 1961, where E.J.D. saw a raft of about twenty, and north to 28°48′S., 98°28′E. on a northbound passage off this coast on 18th September, 1960 (J.H.A.), also north to 15°30′S., 11°35′E. off S.W. Africa on 7th July, 1961 (C.C.A.).

Grey-headed Albatross *(Diomedea chrysostoma)*. Seen from "Protector" at 32°18′S., 72°10′W. on the west coast of South America on 19th November, 1960, south to 53°S., 51°10′W. on 7th December, 1960 (D.C.S.).

Sooty Albatross *(Phoebetria fusca)*. Seen north to 29°35′S., 31°41′E. on the east coast of South Africa on 5th August, 1960 (P.H.K.) and 15°31′S. on the west coast on 7th July, 1961 (C.C.A.).

Light-mantled Sooty Albatross *(Phoebetria palpebrata)*. Reported from "Protector" at 51°30′S., 57°W. on 6th December, 1960 (D.C.S.). Records of this species from low latitudes seem potentially liable to arise from confusion with young Sooty Albatrosses among other things, while records of both Sooty Albatrosses from very low latitudes could arise from confusion with young Giant Petrels, which are now known from ringing returns habitually to wander very far north; so more notes to support questionable identifications of this sort would be welcome in future.

FULMARS, PRIONS, PETRELS, SHEARWATERS *(PROCELLARIIDAE)*

Giant Petrel *(Macronectes giganteus)*. In the South Atlantic it was first met at 34°21′S., 52°12′W. on 28th September, 1960, in the west by T.F.S.F., and in hundreds at 22°S., 13°30′E. on 8th July, 1961, by C.C.A. in the east, with many records further south. Many ringing returns have now shown that the dark chocolate coloured immature birds migrate far north towards the tropics in their first years of life, though it is not yet quite clear how far the paler, greyer, pale-faced adults stray from the breeding colonies in the south; it would be useful if notes could be kept of the appearance of birds seen at sea.

Pintado Petrel *(Daption capensis)*. Seen north to 29°38′S., 31°44′E. off East Africa on 5th August, 1960 (P.H.K.), 28°24′S., 98°28′E. off West Australia on 18th September, 1960 (J.H.A.), 42°S.,175°23′E. on 12th May, 1961, off eastern New Zealand, (E.J.D.), 29°25′S., 71°45′W. on 18th November, 1960, off western South America (D.C.S.), and 27°44′S., 44°W. on 26th September, 1960, off eastern South America (T.F.S.F.). W.N.H.J. describes a possible bird at 5°N., 30°10′W. in the tropical Atlantic on 23rd May, 1961. His account is rather suggestive, but by no means complete enough to prove the presence of a Cape Pigeon so far north. None the less this bird does stray further north than the other southern petrels, and there are about ten records from north of the equator in the Atlantic, Pacific and Indian Ocean, so members might watch out for transequatorial vagrants.

Fulmar *(Fulmarus glacialis)*. Reported commonly from the northern North Atlantic. D.F.F. found it the most numerous bird around Iceland in April 1961, mainly the light phase with a few dark individuals. R.S. reports something over a thousand at about 55°N., 41°W. on 18th June, 1961; large numbers of birds, presumably immatures, are known to summer in the high-plankton area along the borders of the Labrador Current off the Grand Banks of Newfoundland, but this number seems quite unusual. A.J.F.C. also reported the sudden appearance of Fulmars

as the water temperature rose from 47°F. to 62°F. on entering the Gulf Stream in this area at 40°13'N., 69°25'W. on 13th May, 1961. Most southerly record 44°N., 22°W. on 9th June, 1961 (W.N.H.J.).

Silver-grey Petrel or Southern Fulmar *(Fulmarus glacialoides)*. Seen from "Protector" southwards from 34°15'S., 72°18'W. on 19th November, 1960, off western South America (D.C.S.).

Blue Petrel *(Halobaena coerulea)*. Seen off southernmost South America at 50°16'S., 66°48'W. on 11th February, 1961 (W.A.K.).

Prions *(Pachyptila* sp.). Seen from "Protector" at 51°30'S., 57°W. on 6th December, 1960 (D.C.S.).

White-chinned Petrel *(Procellaria aequinoctialis)*. On the east coast of South America, seen south from 34°12'S., 54°48'W. on 28th September, 1960, by T.F.S.F., and from 41°31'S., 59°48'W. on 9th February 1961, by W.A.K. On the west coast, seen south from 32°22'S., 72°12'W. on 19th September 1960, from "Protector" (D.C.S.).

White-faced Shearwater *(Puffinus leucomelas)*. Large white-bellied shearwaters tentatively identified as Hawaiian Petrels seen while entering the South China Sea at 8–12°N., 109–111°E. on 26th–27th January, 1961, by J.B.M. seem more likely to be this species, which winters abundantly in this region.

Mediterranean or Cory's Shearwater *(Puffinus kuhlli=P. diomedea)*. The usual scattered records at sea in the summer range in the temperate North Atlantic and Mediterranean between 1st March, when P.P.O.H. started to record it off Tunisia, until 6th September, when he saw over 1,000 starting to gather for autumn migration at 37°N., 9°W. in the vicinity of Cape St. Vincent. Now that we are getting many regular notes from the U.K.–Mediterranean routes from P.P.O.H. and others it is becoming clear that in the Mediterranean especially the birds tend to frequent certain areas, mainly well offshore around prominent headlands and islands, where there is presumably a good food supply in offshore currents and areas of upwelling. Some of the places include the vicinity of Capes St. Vincent and Trafalgar, the approaches to Gibraltar, and the vicinity of Cape Bon, Tunisia, Malta, and Crete. P.P.O.H. saw flocks totalling 300–400 gathering with porpoises to feed on shoals of fish 14 miles north of Gozo on 14th April, 1961, and M.B.C. also saw large flocks off Gozo and west of Malta on 23rd April, 1961. In *Sea Swallow* 3:12–14 Captain H. A. Traill described the breeding colony of this species and British Storm-petrels on Filfola Island off Malta, and also mentioned how the local fishermen also used to gather to fish nearby. D.S. also saw occasional individuals of this species off West Africa at 11°N., 17°W., on 20th February, 1961, and 07°20'N., 13°W. on 24th February, 1961; it is not clear whether these would be local birds from the Cape Verde Islands, or migrants from the north either wintering in the area or on the return passage from the wintering grounds off South Africa.

Pale-footed Shearwater *(Puffinus carneipes)*. A large all-brown petrel with a pale bill having a dark tip and a broad, wedge-shaped tail which was similar in wingspan to a Great-winged Petrel seen by A.S. at 36° 36'S., 158°E. off S.E. Australia on 24th November, 1960, may have been this species or the Westland Petrel *(Procellaria westlandica)* from New Zealand. (This is essentially a White-chinned Petrel without the white chin, and may be best regarded as a race of that species). Similar birds seen off Brisbane on 31st December, 1960, probably were Pale-footed Shearwaters.

Pink-footed Shearwater *(Puffinus creatopus)*. Seen from "Protector"

in the breeding area at 40°42′S., 74°12′W. on 23rd November, 1960 (D.C.S.).

Greater Shearwater *(Puffinus gravis)*. In the south, T.F.S.F. reports them off South America between 32–34°S. and 48½–52½°W. on 27th–28th September, 1960, while one was seen from "Protector" at 51°30′S., 57°W. on 6th December, 1960 (D.C.S.). On the northwards migration W.N.H.J. saw thirty at 06°55′N., 41°37′W. on 25th May, 1961, and one at 38°N., 33°W. on 7th June, 1961, A.J.F.C. saw about fifty at 40°15′N., 61°W. on 14th May, 1961, S.C. saw up to 125 in flocks between 46°27′N., 56°43′W. on 28th May, 1961, and 51°11′N., 29°58′W. on 1st June, 1961, and R. S. reported flocks of "several thousand" off the S.E. point of Belle Isle at the mouth of the Gulf of the St. Lawrence and eastwards on 18th–20th June, 1961. There are a number of scattered records from the central North Atlantic in the middle of the summer, some of which rather look as if they may result from confusion with Cory's Shearwater, which is quite common in the southern part of this area then, while on the return passage P.P.O.H. saw one off Brittany at 47°53′N., 05°41′W. on 21st August, 1961.

Wedge-tailed Shearwater *(Puffinus pacificus)*. In the Indian Ocean despite my attempt to clear up the issue in *Sea Swallow* two years ago a number of people are clearly still confusing this species and the Pale-footed Shearwater or especially Jouanin's Petrel. Among the more likely records referred to this species are birds seen by J.B.M. at 03°49′S., 59°34′E., 01°03′S, 80°32′E. in the Indian Ocean and 15°57′N., 113°12′E. in the South China Sea on 10th, 15th and 28th January, 1961, though the first two could have been Jouanin's Petrels and the last a Bulwer's Petrel; and birds seen off the south coast of Arabia by P.P.O.H. at 14°30′N. 50°24′E., 22°40′N. 59°49′E., 20°N. 58°40′E. and 15°N. 51°56′E. on 17th, 19th, 25th and 27th July, 1961, the second record involving three birds seen with a whale and the fourth dozens congregating around a plankton slick. Some medium-sized petrels showing some white below seen at 22°41′N, 121°21′E. off Taiwan on 5th February, 1961, by J.B.M. could also have been the pale phase of this species, while three dark shearwaters seen by A.S. off N.E. Australia at 23°46′S., 151°18′W. on 16th November, 1961, were also most likely to be this species.

Grey-backed Shearwater *(Puffinus bulleri)*. A.S. saw a bird which could have been this species at 25°28′S., 158°13′W. on 17th November, 1960, and a more definite one at 32°49′S., 173°W. on 22nd November, 1960.

Sooty Shearwater *(Puffinus griseus)*. In the Atlantic, S.C. saw the first two at 43°56′N., 50°32′W on 29th May, 1961, and another at 51°11′N., 28°W. on 1st June, 1961; R.S. saw two among large numbers of Great Shearwaters off Belle Isle on 18th June, 1961; S.C. saw one at 51°53′N., 54°21′W. on 18th September, 1960, and P.P.O.H. saw one off Portugal at 37°N., 9°W. on 6th September, 1961. In the South Atlantic C.C.A. saw many flocks some hundreds strong off S.W. Africa at 22°S., 13°30′E. on 8th July, 1961, which is important because it tends to confirm that many of these birds do not migrate north across the equator in the southern winter. In the Pacific during the southward voyage of "Protector" flocks of hundreds were seen south along the west coast of South America from 11°S., 78°W. on 3rd November, 1960, with thousands at 40°42′S., 74°12′W. on 23rd November (D.C.S.) and one was seen in the central Pacific at 14°S., 125°26′W. half-way

between California and New Zealand on the southward migration on 12th November, 1960 (A.S.).

Manx Shearwater *(Puffinus puffinus)*. Two flocks of thirty seen heading north off Cape St. Vincent on 11th April, 1961, by P.P.O.H. may have been the black-backed, white-breasted typical race *P.p. puffinus* on their northward spring migration. After this individuals and sometimes flocks were reported a number of times off the N.W. coast of Europe until September, while P.P.O.H. also saw one three miles off Dover on 8th April, 1961. At least a hundred were also present off the Portuguese coast at 39°20'N., 09°30'W. on 12th May, 1961, and flocks were also seen in the Straits of Gibraltar on 6th May, 26th June and 24th August, usually together with porpoises (P.P.O.H.). The last group in particular seemed larger than birds seen shortly afterwards in the eastern Mediterranean, and may have belonged to the large, brown-backed, more or less dark-breasted western Mediterranean race *P.p.mauretanicus*, as may several seen off North Africa at 37°15'N., 10°E. by M.E.C. on 2nd July, 1961, and others with brown backs seen by P.P.O.H. off Cape St. Vincent on 6th September, 1961. Birds seen off North Africa at 37°N., 03°49'E. on 2nd June, 1961, and at 36°N., 26°30'E. by P.P.O.H. on 30th June, 1961, may have belonged to either this race or the eastern Mediterranean race *P.p.yelkouan*, which is smaller and brown above but white below, and twenty seen twenty miles north of Malta by C.C.A. on 4th May, 1961, and odd birds seen by P.P.O.H. at 35°28'N., 21°13'E. off Crete on 1st September, 1961, at 34°28'N., 33°07'E. off Cyprus on 30th August, 1961, and off Banias, Syria on 31st August, 1961, were doubtless *P.p.yelkouan*. Shearwaters which may have been typical *P.p.puffinus* on their southwards migration were seen at 28°05'S., 44°24'W. by T.F.S.F. on 26th September, 1961, and others which may have been this form in its winter quarters were seen at 43°28'S., 75°32'W. off the Argentine by W.A.R. on 15th February, 1961.

Audubon's Shearwater *(Puffinus lherminieri)*. Large numbers of small brown and white shearwaters variously identified at Audubon's Shearwaters, Dusky Shearwaters or Persian Shearwaters, and presumably the local form of Audubon's Shearwater *(P.l'h. persicus)* since it has yet to be proved that any other small black or brown and white shearwater occurs there, were seen by numerous observers in the southern extremities of the Red Sea and Persian Gulf and all along the south coast of Arabia throughout the year. J.B.M. also saw odd Audubon's Shearwaters at 03°48'S., 65°01'E. and 03°55'S., 70°25'E. when approaching the Maldives on 12th–13th January, 1961.

Gad-fly Petrels of the genus *Pterodroma*. Considerable space was devoted to these last year, and there are few more significant records, except that A.S. has produced a number of interesting descriptions of birds seen in the Pacific. Possible Great-winged Petrels *(Pterodroma macroptera)* were seen off northern New Zealand between 32°49'S., 173°07'W. and 36°36'S., 157°51'E. on 22nd–24th November, 1960, and also a possible Solander's Petrel *(Pterodroma solandri)* at the last place which differed from them in having a conspicuous white area under the wing of a different type from a Sooty Shearwater. He describes it as dark brown on the upperparts, head and neck, the body possibly mottled white, with a white bar running along the leading edge of the wing above and white patches on the wing below. It was considerably larger than a Bonin Petrel which it was thought to be chasing, and was at first thought to be a skua; it flapped its wings most of the time.

holding them well back (indeed, a Pomarine Skua seems a definite possibility). Bonin or Black-winged Petrels *(Pterodroma (hypoleuca) nigripennis)* were seen on both this and the preceding days, and White-necked Petrels *(Pterodroma externa)* the last day as well at 29°S., 172°30'W. The two looked rather alike, the Bonin Petrels having light brown upperparts with darker primaries and wing-coverts forming an inverted dark W on the back, a dark mark around the eye and at the side of the breast, and white underparts with dark edges to the underwing, and a dark bill, while the White-necked Petrels were rather similar but larger, with grey-brown upperparts showing a dark W, a dark crown and tail, a paler rump and pale collar rather like a Greater Shearwater. Finally, a small Gad-fly Petrel of the "Cookilaria" group, probably *Pterodroma leucoptera*, was seen at 14°06'S., 125°24'W. on 12th November, 1960. It also had a dark crown and nape, a dark inverted W across the upper-wing and back, and a dark tail contrasting with a paler rump. The bill was black and all the underparts except the wing-tips white, the leading edge of the wing seeming very light in the sun. It had a buoyant flight like a tern, flapping and gliding with a slightly rolling motion, with slightly drooping wings.

Bulwer's Petrel *(Bulweria bulwerii)*. One seen in the normal winter quarters at 05°55'N. 35°50'W. by W.N.H.J. on 24th May, 1961, was described as being of medium size, with a swallow-like flight and appearance, but all black with a sharply pointed tail, and a rapid, erratic flight with no gliding. This sounds a reasonable description, but it is not clear what the bird was doing here at this time; possibly it was immature.

Jouanin's Petrel *(Bulweria fallax)*. This is clearly an extremely common bird scattered out at sea in the Gulf of Aden and along the south coast of Arabia. There are numerous records, mainly in the northern spring and summer and most commonly from the area off the Kuria Muria Islands, and J.H.A. and P.P.O.H. have sent in details of five birds which came on board in this area, as summarised in the list of bird-in-hand reports. They were all apparently in full plumage and showed no obvious sign of moult, and the colour is described as brown, black or grey-black all over except that one had a paler face, like a Great-winged Petrel of the Pacific race. The iris was brown, the bill black except in one individual where the plates were horn-coloured with white markings. The inside of the bill was flesh, the legs and feet pink or flesh with a dark outer edge and nails and apparently also dark spots on the upper sides of the toe joints. The overall length was 295–320 mm. (11½–12½ ins.), the wing span 768–833 mm. (31–33 ins.), and the two birds caught by P.P.O.H. weighed 172 and 174 grams. The three birds reported by J.H.A. in April occurred with water temperatures of 80–83°F., while the two reported by P.P.O.H. in July occurred with water temperatures of 72–76°F., suggesting strong local upwelling in the area at that time. All appeared at night except possibly the last, recorded as appearing at 0830 hours. A sample of seawater collected by Captain Harrison at the time when his first bird came on board was reported by Professor Sir Alister Hardy to contain copepods, somewhat resembling *Labidocera* and a small immature Euphausiacean.

STORM-PETRELS *(HYDROBATIDAE)*

Wilson's Storm-petrel *(Oceanites oceanicus)*. There are numerous records from the Arabian Sea and tropical Atlantic in the southern

winter. In the Atlantic they were reported north to the area between 40°N., 50°24′W. and 46°44′N., 33°W. by W.A.K. in 18th–21st July, 1961, while P.P.O.H. saw one closely from a boat at 42°11′N., 09°49′W. on 22nd August, 1961, several hundred sitting on the water along a tidal mark at 43°20′N., 09°36′W. on 22nd August, 1961, and others in the western extremity of the Mediterranean on 9th September, 1961. Although the birds are quite common in summer in the southern Red Sea W.B.C. reports that they were only seen occasionally in the Persian Gulf in late July. P.P.O.H. reports that he saw over a thousand pattering along a line of scum marking a current boundary at 13°16′N., 47°14′E. off south Arabia on 28th July, 1961, and that a number suddenly appeared when the water temperature suddenly dropped from 86° to 70°F. at 12°30′N., 44°30′E. in the Gulf of Aden on 16th July, 1961, presumably because there was local upwelling there. In the Pacific off western South America they were seen from "Protector" south from 48°S., 74°W. on 24th November, 1960, and between 43°28′S., 75°32′W. and 29°S., 71°49′W. by W.A.K. on 15th–18th February, 1961. During the southern summer birds were seen from "Protector" around the Falkland Islands at about 52°S., 58°W. in early January (D.C.S.), while at the same time W.A.K. reported birds resembling this species following his ship between 11°10′N., 24′34°W. and 01°29′N., 29°43′W. in the tropical Atlantic on 9th–11th January. These might have been immature birds, though Leach's Storm-petrel is usually commoner here at this season.

White-faced Storm-petrel *(Pelagodroma marina)*. Some people still seem to be confusing this bird with the phalaropes, which should not happen, because this species is usually solitary and does not swim, whereas the Phalaropes flock and swim freely. Two small petrels which were dark above and white below with a gliding flight seen by P.P.O.H. in the Arabian Sea at 15°27′N., 52°29′E. on 17th July, 1961, seem most likely to have been this species, as may also birds the size of Wilson's Petrels seen in parties of up to three at 40°00′N., 09°52′W. off the coast of Portugal on 13th August, 1962, which he describes as looking rather like Grey-backed Storm-petrels, with dark shoulders and entirely white underparts. D.S. saw another unknown storm-petrel described as being dark above and white below off West Africa at 11°05′N., 17°07′W. on 20th February, 1961, which could also be this species.

Dark-bellied Storm-petrel *(Fregetta tropica)*. Three seen from "Protector" at 47°59′S., 73°54′W. off western South America on 24th November, 1960.

White-bellied Storm-petrel *(Fregetta grallaria)*. Three reported without a description but with a passable sketch by E.J.D. from 32°S., 169°W. on 8th May, 1961.

British Storm-petrel *(Hydrobates pelagicus)*. Seen by S.C. at 51°30′N., 22°12′W. well west of Ireland on 3rd June, 1961, and again following the ship at 52°14′N., 16°31′W. on 10th October, 1960. Several seen by P.P.O.H. when approaching Gibraltar at 37°26′N., 01°30′E. on 12th April, 1961, 36°N., 23½°E. on 11th May, 1961, and 36°25′N., 04°31′W. on 3rd June, 1961, 38°N., 10–5°W. on 5th July, 1961, and 36½°N., 0–1½°W. on 11th August, 1961, in an area where he also recorded Wilson's Petrels at the end of the summer though some of the earlier birds showed the pale underwing characteristic of our Storm-petrel. Also recorded following the ship in the winter quarters off West Africa at 11°N. 17°W. by D.S. on 20th February, 1961.

Madeiran Storm-petrel *(Oceanodrona castro)*. These are reported

quite commonly in the tropical Atlantic and Pacific, but usually in terms which do not exclude the possibility of confusion with British, Leach's or Wilson's Storm-petrels wintering in the same area. This year there are two series of sight identifications which have been backed up with details of birds which came on board. In the Atlantic J.H.A. reports that a number were always in sight throughout the day between 04°03'N., 04°18'E. and 04°09'N. and 01°04'W. in the Gulf of Guinea on 15th–16th February, and sends in a bird-in-hand form for one which came aboard at 0200 hours on the 16th. In the Pacific A.S. also reports that numbers were seen between 00°09'N., 94°12'W. and 05°25'S., 107°01'W. on 7th–9th November, 1961, and that one came on board on the 7th. Since these two otherwise excellent descriptions of birds which were actually handled are extremely important for confirming sight identifications, it is perhaps worth pointing out that both are vague concerning the character which separates Leach's and the Madeiran Storm-petrels, both likely to appear in these waters at this time. Leach's Petrel normally has grey shafts to the central feathers of the white rump, but not prominent dark tips to the rump feathers, whereas the Madeiran Petrel has the feathers all white with well-defined dark tips to the longest ones (the British and Guadalupe Storm-petrels also have dark tips; Wilson's and the Galapagos Storm-petrels have the rump all white). None the less, the two descriptions are pretty convincing. It is notable that the Atlantic bird came on board with a water temperature of 85°F., while the Pacific ones were seen with water temperatures of 68–74°F.; J.H.A. reports that on the first day two or three birds were in sight all day, and on the second at least a dozen were in sight all day, while occasionally groups of six to eight were passed on the water, which easily took off. They flew with quick wing-beats with frequent long spells of gliding.

Leach's Storm-petrel *(Oceanodroma leucorhoa)*. A number of records by S.C. and R.S. from the N.E. part of the North Atlantic, while one came on board "Protector" in the winter range at 19°N., 49°58'W. on 16th–17th October, 1960. W.N.H.J. sent in a bird-in-hand report from 45°50'N., 17°50'W. on 10th June, 1961 (rump described as "almost white"), and reported about a hundred feeding with Fulmars around a dead whale at 57½°N., 10°W. off the Hebrides on 26th August, 1961. It would have been interesting to have some more details of the last report, which seems most unusual.

Sooty Storm-petrel *(Oceanodroma markhami)*. Seen from "Protector" between 17°28'S., 72°08'W. and 23°10'S., 70°50'W. on 12th–14th November, 1960, off the west coast of South America. Described as a dark brown storm-petrel with no white rump but paler brown wing-coverts forming a band across each wing, a forked tail, and an uneven, rather tern-like flight. Seventeen were seen in half an hour on the 13th, and the last came on board at 0115 hours on the 14th (D.C.S.).

DIVING-PETRELS *(PELECANOIDIDAE)*

Magellan Diving-petrel *(Pelecanoides magellani)*. Seen from "Protector" off southern South America at 52°42'S., 70°08'W. on 29th November, 1960 (D.C.S.).

TROPIC BIRDS *(PHAETHONTIDAE)*

These seem to have largely complementary ranges, the White-tailed Tropic-bird occurring in the central tropics while the Red-billed

Tropic-bird occurs along the temperate periphery of its range in the northern Indian Ocean and in the North and South Atlantic, being replaced by the rather closely allied Red-tailed Tropic-bird in the southern Indian Ocean and North and South Pacific. More well-documented records of the occurrence of the different species are needed to determine quite what factors limit the distribution of each species, however.

Red-billed Tropic-bird *(Phaethon aethereus)*. Numerous records from the Red Sea, Arabian Sea, and Persian Gulf. One was seen outside Vizagapatnam in the Bay of Bengal by C.C.A. on 23rd March, 1961, and again at almost exactly the same place, 17°40'N., 83°20'E. by A.B.D. nine days later, on 1st April. There are very few records for this or indeed any sea bird in the Bay of Bengal, and the status of all of them there is still most obscure. This may or may not have been a stray from the Arabian Sea; it tried to feed around ships, which is rather unusual. Possibly it was brought into the area as a captive on a ship coming from the Arabian Sea, and liberated off the port?

Red-tailed Tropic-bird *(Phaethon rubricauda)*. A.S. saw five in the eastern tropical Pacific at 05°15'S., 113°W. on 10th November, 1960, seeing the red tail well in one. P.P.O.H. had a clear view of another tropic bird with a red tail off the south coast of Arabia at 13°53'N., 42°52'E. on 30th December, 1960. This lies right outside the normal range of Red-tailed Tropic-birds in the area where they are apparently normally replaced by Red-billed Tropic-birds, but it seems difficult not to accept such a definite record, especially when a Red-billed Tropic-bird with a normal white tail was seen shortly afterwards. This must have been another stray, from the south this time.

White-tailed Tropic-bird *(Phaethon lepturus)*. Seen approaching the Maldives at 03°37'S., 54°21'E. on 10th January, 1961, by J.B.M.

PELICANS *(PELECANIDAE)*

A number of records of flocks seen near the coast, including Eastern White Pelicans *(Pelecanus onocrolatus)* off Walvis Bay (C.C.A.), Pink-backed Pelicans *(Pelecanus rufescens)* off Port Sudan in April, 1961 (A.B.D.), Brown Pelicans *(Pelecanus occidentalis)* off Dominica (WN.H.J.) and Venezuela (T.F.S.F.) and Chilean Pelicans *(Pelecanus thagus)* off the west coast of South America (D.C.S.). Nothing very unusual, but these reports may come to add up to a useful record of numbers and local distribution in time.

GANNETS AND BOOBIES *(SULIDAE)*

Northern Gannet *(Moris bassanus)*. There are the usual numerous records from offshore waters on both sides of the North Atlantic, the main centre of distribution swinging south in winter, while juveniles always tend to predominate in the south and adults around the breeding colonies in the north, only adults occurring around Iceland in April (D.F.F.). A.J.F.C. was also surprised to see an adult at 32°10'N., 30°20'E. off the Nile Delta on 17th February, 1961, but in point of fact it is reported by E. Hardy in his cyclostyled "Check-list of the Birds of Palestine" (1946) that members of the British forces stationed in the eastern Mediterranean during the war found that they normally spread east along the south coast of the Mediterranean at least as far as Palestine in winter. D.S. and C.C.A. also report others, mainly immatures, in the winter area between 11°30' – 19°40'N. and 17°30' –

17°45′W. off West Africa between 17th–22nd February, while P.P.O.H. reports one immature still present off North Africa at 37°N., 02°27′E. as late as 2nd June, 1961, when many immatures are present off Portugal. C.C.A. observes that some ten of these seen off Cape St. Vincent on 7th May, 1961, must have had an airspeed of the order of 40 knots to be able to overtake his ship against a strong wind.

Cape Gannet *(Moris capensis)*. Many records from South African waters, north to Lobito, Angola, where C.C.A. saw many offshore on 1st–2nd July, 1961. They go much further than this according to ringing returns, however, and probably overlap with Northern Gannets in the Gulf of Guinea at times. C.C.A. also notes that some of many birds seen at 22°S., 13°30′E. on 8th July which overtook his ship against the wind must have been flying at about 38 knots, much the same speed as Northern Gannets.

Peruvian Booby *(Sula variegata)*. Seen from "Protector" at 29°25′S., 71°45′W on 18th November, 1960 (D.C.S.).

Blue-faced Booby *(Sula dactylatra)*. Occasional records from the southern Red Sea, with large numbers from the Gulf of Aden and the south coast of Arabia. Further south down the coast of East Africa P.H.K. saw single birds overnight at 02°53′S., 46°57′E. on 19th August, 1960, and at 14°49′S., 41°49′E. on 1st August, 1960. In the eastern Atlantic T.F.S.F. saw one at 23°S., 39°34′W. off Brazil on 25th September, 1960, and others off Trinidad around 17°N., 68°W. and Puerto Rico around 12°N., 70°W. in November and December, while W.A.K. reported it from Banco de Campeche, Yucutan, on 11th July, 1961. In the east Pacific A.S. saw one at 06°N, 82°33′W. off Panama on 5th November, 1960, and others were seen from "Protector" off Colombia at 04°50′N., 79°42′W. on 29th October, 1960 (D.C.S.).

Red-footed Booby *(Sula sula)*. Most records from T.F.S.F. in the West Indies, where he saw them with Brown and Blue-faced Boobies around Trinidad on 15th September and 15th October, 1960, and in the Mona Passage between Hispaniola and Puerto Rico on 6th November and 16th and 27th December. One also came on board out at sea to the north of the last area at 22°12′N., 66°48′W. on 7th November, 1960, and stayed aboard two days. They were also seen from "Protector" in the Gulf of Guayaquil on the opposite side of central America on 31st October, 1960 (D.C.S.).

Brown Booby *(Sula leucogaster)*. Most records from the southern Red Sea and Gulf of Aden as usual, giving way to the Blue-faced Booby along the south coast of Arabia. Also seen in the Indian Ocean near the Maldives at 03°55′S., 70°25′E. by J.B.M. on 13th January, 1961. One record from West Africa, where D.S. saw one at 11°03′N., 17°07′W. near the colony in the Bissagos Islands on 20th February, 1961, and a number of records around Trinidad, Puerto Rico and Jamaica in the West Indies (T.F.S.F., W.A.K., D.C.S.), where although this species usually occurs closer inshore than other boobies it was recorded from ships feeding in mixed flocks with Blue-faced and Red-footed Boobies on shoals of fish out at sea as well. In the Pacific it was seen off Panama at 06°N., 82°52′W. by A.S. on 5th November, 1960, in the New Hebrides at 13°56′S., 170°24′E. by E.J.D. on 4th June, 1961, and north of Dutch New Guinea at 00°24′N., 134°E. by E.J.D. on 13th June, 1961.

CORMORANTS *(PHALACROCORACIDAE)*

There are the usual scattered records of a variety of species seen along different coasts. P.P.O.H. saw three Common Cormorants *(Phal-*

acrocorax carbo) in the Great Bitter Lake while passing through the Suez Canal on 15th January, 1961, and C.C.A. saw Cape Cormorants *(Phalacrocorax capensis)* in Lobito Bay, Angola, and Walvis Bay, S.W. Africa in July, 1961, and White-breasted Cormorants *(Phalacrocorax lucidus)* in Lobito Bay as well. P.P.O.H. saw 65 Socotra Cormorants *(Phalacrocorax nigrogularis)* at 28°50'N., 48°54'E. after leaving Kuwait on 27th April, 1961, and P.H.K. one in Little Aden Harbour on 22nd July, 1960. A variety of species were seen from "Protector" while sailing down the west coast of South America in the autumn of 1960, including Bigua Cormorants *(Phalacrocorax olivaceus)* in the Gulf of Guayaquil on 31st October, over a thousand Guanay Cormorants *(Phalacrocorax bougainvillei)* near the Guano Islands of Peru at 15°37'S., 74°59'W. on 9th November, Bigua, Guanay, and Red-legged Cormorants *(Phalacrocorax gaimardi)* off Chile at 36°36'S., 73°01'W. on 20th November, and Blue-eyed Cormorants *(Phalacrocorax atriceps)* in the Magellan Strait at 52°42'S., 70°08'W. on 29th November (D.C.S.).

FRIGATE-BIRDS *(FREGATIDAE)*

Magnificent Frigate-bird *(Fregata magnificens)*. Seen around 12°N., 70°W. off western Venezuela on several occasions between September and December, 1960, by T.F.S.F., and nearby at Curacao by A.S. on 1st November; also off Puerto Rico at 17°10'N., 68°20'W. by T.F.S.F. on 6th October, 1960. Two possible Frigate-birds seen in Lobito Harbour, Angola by C.C.A. on 3rd July, 1961, would most probably be this species, though the presence of a Frigate-bird does not seem to have been confirmed anywhere along the west coast of Africa south of Gambia yet. Frigate Birds seen in the Gulf of Guayquil, Ecuador, from "Protector" on 31st October, 1960, were also probably this species, as Greaters do not seem to come east of the Galapagos.

Greater Frigate-bird *(Fregata minor)*. Seen off the N.W. coast of Australia at 19°S., 150°27'W. and 22°25'S., 155°W. by E.J.D. on 4th–5th May, 1961.

PHALAROPES *(PHALAROPODIDAE)*

Several people still seem to be confusing phalaropes and White-faced Storm-petrels. Once more, in general birds which occur alone and have a gliding, fluttering type of flight low over the water but do not swim or show a white bar on the posterior edge of the wing are probably storm-petrels, while birds which flock, fly fast low over the water and settle to swim, and show a white wing-bar are phalaropes. When people cannot identify the family correctly we are bound to view with suspicion attempts to identify the species of phalaropes in winter plumage. For what the information is worth Wilson's Phalarope *(Steganopus tricolor)* is the largest with no wing bar and a moderately grey back, the Grey or Red Phalarope *(Phalaropus fulicarius)* is intermediate in size, with a moderately thick bill and tends to be a rather pale, uniform grey above in winter, while the Red-necked or Northern Phalarope *(Lobipes lobatus)* is considerably smaller with a more slender bill and tends to be a darker, more streaky grey above in winter. The last two both show white wing-bars and are very widespread on migration. All three species may occur off the west coast of South America in winter; Grey Phalaropes appear to predominate but Red-necked have been recorded rather doubtfully off West Africa, Red-necked appear

to predominate but Grey have been recorded exceptionally off southern Arabia, and so far only Red-necked appear to have been recorded wintering along the northern border of the East Indies.

Large numbers of Phalaropes were seen from "Protector" along the west coast of South America in November, including many flocks, possibly a thousand in all, flying S.E. at 11°S., 78°04'W. on 4th November, 1960, perhaps on migration, and other flocks on the water south to 42°30'S., 74°25'W. on 23rd November. The only one which was identified as Grey Phalaropes were seen on migration in the North 18°05'S., 71°55'W. on 12th November, but those seen further south were darker on the back and may have been Red-necked. Six birds identified as Grey Phalaropes were seen on migration in the North Atlantic east of Belle Isle at the mouth of the Gulf of the St. Lawrence by R.S. on 18th June, 1961, while unidentified phalaropes, probably the same species, were seen in the winter quarters off West Africa at 26°30'N., 15°30'W. by D.S. on 17th February, 1961, and at 25°12'N, 16°20'W. by J.H.A. on 22nd February, 1961. Substantial numbers of probable Red-necked Phalaropes were also seen along the south coast of Arabia and in the approaches to the Persian Gulf and Red Sea throughout the winter, while P.P.O.H. also saw a number of flocks feeding with Shearwaters, Jouanin's and Wilson's Petrels, in an area with a flush of plankton at 15°N., 56°E. off the coast of the Hadrhamaut on 27th July, 1961. It would appear that like many other birds some phalaropes may spend the whole year in their winter quarters.

SKUAS *(STERCORARIIDAE)*

Great Skua *(Catharacta skua)*. Seen frequently at sea off the west coast of Europe, south to the approaches to Gibraltar in winter, north to Iceland waters in April (D.F.F.), east to 50°35'N., 00°06'E. off Beachey Head on 6th June, 1961 (P.P.O.H.), west to 52°35'N., 47°28'W. on 17th September, 1960, and 45°23'N., 45°30'W. and 47°N., 42°12'W. on 15th March and 11th April, 1961 (S.C.). Southern Skuas were also seen at 35°23'S., 120°E. off West Australia by J.H.A. on 15th September, 1960, and a possible one at 11°07'S., 119°10'W. by A.S. on 11th November, 1961.

Pomarine Skua *(Stercorarius pomarinus)*. A number of records from the winter quarters off West Africa, between 06°59'N., 22°28'W. and 16°44'N., 16°24'W., most in winter (W.N.H.J., C.C.A., D.S., A.S.) but also two at 18°41'N., 17°50'W. and 11°19'N., 17°45'W. on 23rd–24th June, 1961 (C.C.A.). On spring passage seen constantly by S.C. on a westwards passage across the Atlantic between 51°N., 17°50'W. and 45°N., 50°W. between 4th–10th May, 1961, and at the point where the Gulf Stream meets cold water at 40°13'N., 69°25'W. by A.J.F.C. on 13th May, 1961, though S.C. only saw one doubtful skua on the return voyage on 28th May – 4th June, 1961. On autumn passage, P.P.O.H. met them off Portugal at 37°N., 9°W. on 6th September, 1961, and S.C. off western Britain at 52°74'N., 16°31'W. on 10th October, 1961. Elsewhere, the only definite record seems to be off Sydney on 30th - 31st December, 1960 (A.S.).

Arctic Skua *(Stercorarius parasiticus)*. Recorded on autumn passage on the east side of the Atlantic at 42°51'N., 10°40'W. and 48°50'N., 04°36'W. off Portugal on 31st August and 8th September, 1961, by M.B.C. and P.P.O.H., and on the west side at 38°50'N., 62°30'W. and 14°52'N., 69°W. on 10th and 28th November, 1960, by T.F.S.F.

Perhaps it may be useful to emphasise again that skuas seen in their winter quarters are likely to be very difficult to identify because they are liable to be either juveniles or in moult. In view of this situation it is particularly useful that a number of ringing returns have now demonstrated that British-bred Arctic Skuas normally migrate well beyond the wintering grounds of Pomarine Skuas off tropical West Africa to winter off South Africa.

Long-tailed Skua *(Stercorarius longicaudatus)*. Seen migrating north occasionally among Pomarine Skuas between 48°N., 36°W. and 44°45'N., 53°33'W. by S.C. on 8th - 11th May, 1961. None seen on the return journey.

GULLS *(LARIDAE)*

There are the usual large number of routine records from harbours and coasts in different parts of the world, few of them justifying quotation in detail by themselves though it is to be hoped that all the records can be added together to provide a useful picture of local distribution in time. Some people still seem to be confusing Greater and Lesser Black-backed gulls *(Larus marinus* and *L.fuscus)* in European waters. In general, while both are common in the north in summer, Greater Black-backs only exceptionally reach the Mediterranean in winter and do not go much further south, while most Lesser Black-backs migrate further south. Therefore some justification must be produced for identifications of a Lesser Black-back north of the Mediterranean in winter, or of a Greater Black-back in the Mediterranean and further south. Young Lesser Black-backs may, of course, stay far south during their first few years of life, complicating the identification of other gulls in tropical ports during the southern winter. Notable records include two Sabine's Gulls *(Xema sabini)* seen from "Protector" off the west coast of South America at 04°12'N., 79°41'W. and 17°21'S., 72°08'W. on 29th October and 12th November, 1960 (D.C.S.), and two immature Little Gulls *(Larus minutus)* seen in the Medway by P.P.O.H. on 20th August, 1961.

TERNS *(STERNIDAE)*

White-winged Black Tern *(Chlidonias leucoptera)*. A small tern which came aboard at 37°00'S., 150°02'E. off Tasmania on 17th February, 1961, caused A.S. considerable trouble in identification because of the poor state of the plumage among other factors. It was eventually decided that despite the almost complete lack of dark markings on the head and neck and unexpected colour of the soft parts, with black markings on the front of the orbital ring, legs, and feet, it must be a White-winged Black Tern on account of its small size, its length being 9½ins. This record should help to emphasise quite how little is known about the immature and winter plumages and seasonal variations in the colour of the soft parts of many terns. This is one of many reasons for trying to collect more detailed descriptions of these birds.

Black Tern *(Chlidonias nigra)*. Seen along the Panama Canal between 3rd – 4th October, 1960 (A.S.) and between Quebec and Montreal on 16th June, 1961 (R.S.). On the opposite side of the Atlantic.

several were seen at Monrovia, Liberia, on 22nd February, 1961 (D.S.); vast numbers winter on this coast, together with Common and Sandwich Terns *(Sterna hirundo* and *Thalasseus sandvicensis)*, also reported in the same area.

Gull-billed Tern *(Gelochelidon nilotica)*. Reported at 29°N., 48°E. at the head of the Persian Gulf by P.P.O.H. on 26th April, 1961, and at Aden by M.B.C. on 20th August, 1961; M.B.C. also saw Caspian Terns *(Hydroprogne tschegrava)* at Little Aden on 16th July, 1961. P.P.O.H. saw probable Common Terns *(Sterna hirundo)* on northward passage off Cape St. Vincent at 37°N., 9°W. on 1st April, 1961, and possible Arctic and Roseate Terns *(Sterna paradisea* and *S. dougalli)* on southward passage off Cape Finisterre at 43°N., 9°30'W. on 22nd August, 1961. He among others also saw White-cheeked Terns *(Sterna repressa)*, the Indian Ocean representative of the Common-Arctic group, in the Persian Gulf on 7th January, 1961, and Brown-winged Terns *(Sterna anaethetus)* there on a number of different dates. Flocks of terns which caused several other people trouble here, including some identified as Sooty Terns *(Sterna fuscata)*, were probably really this species, though Sooty Terns are common enough further out in the Arabian Sea; J.B.M. also saw many at 03°37'S., 54°12'E. off the Seychelles on 10th January, 1961, and C.C.A. had one come on board at 23°17'S., 38°58'E. off S.E. Africa on 6th August, 1961. In the western hemisphere T.F.S.F. saw Brown-winged Terns at 11°N., 63°W. off Trinidad on 11th September, 1960, and Sooty Terns at 09°17'N., 53°57'W. on 17th September, 1960, while they were seen from "Protector" at 19°N., 50°W. on 18th October, 1960. W.A.K. also saw them across the Caribbean from 12°52'N., 70°W. to 23°16'N., 83°57'W. between 20th June and 12th July, 1961.

Little Terns *(Sterna albifrons)* were reported by A.B.D. at 12°50'N., 43°15'E. in the Gulf of Aden on 10th February, 1961, and Crested and Lesser Crested Terns *(Thalasseus bergii* and *T. bengalensis)* from a number of places all round the coasts of Arabia by a number of different people. Crested Terns were also reported from Melbourne, Australia, by A.S. on 22nd February, 1961, and Lesser Crested Terns from 35°15'N., 18°E. in the Mediterranean on 1st February, 1961; the last record, which is not documented with details, seems rather unlikely, though the species does occur along the south coast of the Mediterranean. Damara Terns *(Sterna balaenarum)* are recorded from the coast of southern Africa between East London and 22°S., 13°30'E. by C.C.A. between 1st March and 9th July, 1961, and Inca Terns *(Larosterna inca)* at Mollendo, Peru, and Antofagasta, Chile, from "Protector" between 10th – 17th November, 1960. Common Noddies *(Anous stolidus)* were recorded around southern Arabia at 17°34'N., 40°35'E. on 20th April, 1961 (P.P.O.H.), at 12°35'N., 43°24'E. and 17°24'N., 54°46'E. on 5th and 8th July, 1960 (P.H.K.), and at 03°55'S., 70°25'E., off the Maldives on 13th January, 1961 (J.B.M.).

AUKS *(ALCIDAE)*

Little Auk or Dovekie *(Plautus alle)*. Recorded regularly in winter in the vicinity of the Grand Banks of Newfoundland by S.C. and others, the last being up to 180 in one hour between 47–45°N., 41°42'–45°50'W. on 9th – 10th May, 1961. Five possible birds also seen at 48°55'N., 04°19'W. off Ushant on 24th February, 1961, by P.P.O.H.

BIRD-IN-HAND FORMS

The following nine reports were sent in during 1961 :—

Species	*Observer*	*Date*	*Place*	
Jouanin's Petrel				
Bulweria fallax				
	J. H. Agnew	5.4.61	14°50'N.	50°59'E.
	J. H. Agnew	15.4.61	18°45'N.	57°45'E.
	J. H. Agnew	16.4.61	15°27'N.	52°05'E.
	P. P. O. Harrison	17.7.61	15°58'N.	52°35'E.
	P. P. O. Harrison	18.7.61	17°17'N.	56°21'E.
Madeiran Storm-petrel				
Oceanodroma castro				
	J. H. Agnew	16.2.61	04°11'N.	04°51'W.
Leach's Storm-petrel				
Oceanodroma leucorhoa				
	W. N. H. Jarvis	10.6.61	45°50'N.	17°50'W.
White-tailed Tropic-bird				
Phaethon lepturus				
	W. N. H. Jarvis	24.3.61	25°39'N.	48°50'W.
White-winged Black Tern				
Chlidonias leucoptera				
	A. Semple	17.2.61	37°S.	150°02'E.

This is a slight increase on last year. The year's bag is chiefly notable for the presence of no less than five Jouanin's Petrels, which makes it all the more remarkable that the species was only described for the first time seven years ago. Without these forms it is likely that it would have proved impossible to identify the birds from descriptions even now; although even with the forms the accounts are still by no means perfect. However, they are sufficiently good to permit identifications with a reasonable degree of confidence in the face of doubts which have been expressed in some quarters regarding our sight-records. Captain Harrison initiates a useful new departure by including weights as well as other details of birds handled on his forms.

I should like once more to emphasise how extremely valuable these forms are for confirming difficult sight identifications at sea, and how extremely important it is that they should be filled in accurately, so that we can extract the maximum possible amount of information from them. One object is to permit us to identify not just species from the forms, but also sub-species or races. This often depends upon the recognition of very small differences in measurements or markings, so great care is required to record these as accurately as possible.

NOTES ON LAND BIRDS AT SEA

Summarised by Captain G. S. Tuck, D.S.O., R.N.

INTRODUCTION

The great number of individual land bird reports from all over the oceans has been a notable feature of the work of members throughout the year. These seem particularly valuable because even less work has been done on the distribution of land birds at sea in the past than on the distribution of sea birds, and even less is known about it.

However, it has become evident that any detailed analysis of a single year's work alone, such as was presented in *Sea Swallow* last year, would occupy too much space in the Annual Report with our present resources. Nor would this be the best way of studying the normal pattern of land bird movements over the oceans. The question whether birds seen at sea are following regular migratory routes, or have been blown out to sea fortuitously by adverse winds, must be considered in relation to such factors as the season of the year, the weather at the time, and the frequency of such occurrences in a number of different years. Two examples of observations during the year may be of interest, however.

LAND BIRDS POSITIVELY IDENTIFIED 1961/62

EXAMPLE A

Mid North Atlantic at 50°N. between longitudes 20°W. and 30°W. January: Starlings, Redwings; February: Golden Plovers, Lapwings, Song Thrush; April: Wheatear; May: Swallows, Sand Martin, House Sparrow, Turtle Dove, Whimbrel; July: Turnstone; August: Curlew, Wheatear; November: Redwing, Snow Bunting.

EXAMPLE B

30th December, 1961, 200 miles west of the Blaskets off S.W. Ireland. Single observation: Snipe, Song Thrushes, Redwings, Starlings, Meadow Pipits, Greenfinches, Chaffinches, Brambling.

Note—At the end of 1961 the onset of east winds and snow in N.W. Europe was followed by an enormous westwards movement of birds for several days inland in Britain. Stephen Chapman who recorded the above observation reported that north easterly winds had been blowing at force 5 to 7 for the two days before he saw the birds around his ship.

The selection of notes published last year should demonstrate the unique scale on which we are collecting land-bird records now, and it is no longer possible to publish them all as they come in. We hope that as the records accumulate in the files they will help to bring to light the extent to which birds regularly migrate over the oceans, and the extent to which they occur as strays. We hope to publish further selections of records as soon as they begin to demonstrate conclusive results.

THE YEAR

The majority of the report sheets during the past year have covered the North Atlantic routes between U.K. and Montreal or New

York, between Holland and Monrovia (West Africa), the Mediterranean, Arabian Sea and Persian Gulf, and the Indian Ocean, with one passage to Australia and New Zealand, and a particularly interesting report from Stephen Chapman from the Hudson Bay – Churchill River area of northern Canada.

I should like to thank all members for their reports, and in particular Capt. Aikman, Apprentices Chapman and Cheshire, Radio Officer Guina, Capt. Harrison, Second Officer A. Jones, Capt. Landers, Chief Officer Lamb, Chief Engineer Macinnes, Lieuts. Morris, R.N., and Norris, R.N., Capt. Stam, Capt. Walgate and Cdr. Willis.

Records of larger birds which particularly attract attention include a Great Blue Heron *(Ardea herodias)* which spent forty-five minutes trying to land on board s.s. *Sylvania* (Chief Officer Lamb) on 14th April, 1962, in 40°N., 63°W. to the great delight of the watchkeepers. On another occasion ,in June, 1962, in 42°N., 47°W. a North American Blue Goose *(Anser caerulescens)* was observed swimming close to the ship.

THE NORTHWARD MIGRATION OF WHITE STORKS

We have had several records of White Storks *(Ciconia ciconia)* migrating north or south along the well-known routes via Gibraltar and the Gulf of Suez in the past. On 21st May, 1962, the Officers of the Watch on H.M.S. Owen had a good view of over 100 White Storks in two large groups migrating northwards at the western approach to the Sicilian Channel north of the Gulf of Tunis. The sea was calm with light airs, and the birds were flying low over the water. Little seems to be known about this middle route, which involves a relatively long sea crossing difficult for such heavy birds.

In early April, 1962, Lieutenant M. B. Casement witnessed an enormous migration of five to ten thousand White Storks crossing the Red Sea northward bound.

RADAR TRACKING OF LAND BIRDS AT SEA

Lieutenant Casement, H.M.S. Centaur, has had considerable success in the radar tracking of land-bird migration in the western portion of the Mediterranean and has obtained photographic records of the radar displays.

Between Malta and Gibraltar in early May radar showed activity every night, usually reaching a peak at 0200 hours, in the mean direction of 040°. The height of the main streams was from four to six thousand feet. Casement hopes to publish his results next year.

SHORT NOTES

Extract from a Member's Letter:

> *"One has to be sharp in this ship to observe any bird larger than a thrush. We have Chinese ratings, and they are bird lovers too, with the difference that they like their birds with boiled rice!"*

SEA BIRDS

Birds visiting the flight-deck of an aircraft carrier

On pages 2 and 27 of *Sea Swallow* for 1960 we published photographs of a Jouanin's Petrel and Wedge-tailed Shearwater which came to the lights on the flight deck of an aircraft carrier at night in the Indian Ocean during 1960. Lt. N. Bailey has now supplied a full list of birds visiting the lights which were closely examined, though there were many others which he did not handle; they prove to include the first Black-bellied Storm-petrel from the northern Indian Ocean in recent times.

There were three Jouanin's Petrels (*Bulweria fallax*) in all, two of which came on board at 16°40'N., 55°15'E. and 18°50'N., 57°50'E. on 14 February, and the third, the one shown in the photograph, at 11°24'N., 57°05'E. on 25 May, all in the central Arabian Sea off the mouth of the Gulf of Aden. They were generally dark all over, but one had a paler chin, like one subsequently captured off the south coast of Arabia by Captain Harrison. Their overall length in life was 295-300mm., the overall wingspan 790mm. The local water temperature was 78°F. in February, and 83°F. in May. The third bird vomited a small squid about 2c. long, the first evidence for the food of the species.

There were two Wedge-tailed Shearwaters (*Puffinus pacificus*), including the one photographed at 09°25'N., 66°24'E. on 27 May and another off Ceylon at 05°10'N., 84°00'E. on 1 June. The bill was described as steel-grey with a black tip in the first case, and black in the second; the legs and feet were pink. The overall length in life was 370-380mm. (15ins.), the overall wingspan 860mm. The water temperature was 83°F. in both cases, and the first bird also vomited a squid.

Two storm-petrels also came on board in the Minicoy Channel. The first, which was photographed, was a White-faced Storm-petrel (*Pelagodroma marina*) at 08°05'N., 73°00'E. on 28 May. The second was a Black-bellied Storm-petrel (*Fregetta tropica*) at 08°03'N., 72°50'E. on 9 September. The head, neck, upperparts, wings, tail, bill, and legs were described as dark, the rump, belly, flanks and under-tail-coverts wert white, the underwing grey, and there was a dark line down the centre of the belly. The overall length was 180mm., the overall wingspan 410mm., the wing 168mm., the tail 70mm. and almost square, the bill 15mm., the tarsus 40mm., and the middle toe 28mm. This last record appears to be the only record of a storm-petrel of the genus *Fregetta* which has actually been examined in the hand in the whole of the northern Indian Ocean, apart from an old specimen of a Black-bellied Storm-petrel labelled "Bay of Bengal" in the Tweeddale Collection in the British Museum (Natural History).

Lt. Bailey states that he had previously seen a storm-petrel of the "*Fregetta*" group in the hand when a White-bellied Storm-petrel (*Fregetta grallaria*) came aboard off Tristan da Cunha on 21 January, 1958, and laid an egg. There is little previous information for the laying-date of this species at Tristan.

Fulmar Petrels and Kittiwakes following Ships at Night?

Commander R. Walgate, R.N.R., SS Beaverglen, makes the following report covering a passage from Montreal to U.K. in December, 1961: "20th December, 0915 hours—commenced continuous watch. Two good days tending to show that Fulmars and Kittiwakes follow ships during daylight hours only. A bright moon did not tempt the birds to continue at night. 21st December. 1630 hours—Kittiwakes leaving the ship in groups, gliding low over the water like Shearwaters and then settling. No birds seen to follow during dark hours. 22nd December, 1600 hours—twenty-five Kittiwakes leaving the ship as darkness fell.

Walgate comments that on a much used Great Circle track Fulmars and Kittiwakes, which might be resting on the sea at night, would pick up another vessel very quickly at dawn and follow once again.

Captain E. F. Aikman reports that when these two species are following together the Kittiwakes depart first, forming into flocks as Walgate describes. Aikman, however, has seen Fulmars following until it has become almost completely dark.

[Ships at sea at night will always remain visible to sea birds in close proximity either through the ships' silhouette, wake astern or lights. Certain sea birds such as Tropic Birds certainly follow ships at night probably feeding off squid brought to the surface in the disturbance of the wake. What do other sea birds do? A watch kept during the last hour of the middle watch and during the morning watch shortly before and during first light might help to solve this question.—*Editorial Note*]

RED-BILLED TROPIC BIRDS IN PERSIAN GULF

Chief Officer W. P. Crone reports that while he was serving in H.M.S. Dalrymple the ship was frequently at the entrance to the Persian Gulf (Musandam Peninsula) during the winter. A fairly large flock of Red-billed Tropic Birds appeared to be colonising J. Tawakul, a small rocky and fairly inaccessible island close to the main shipping channel inside the Quoin group of islands. At this time of the year there appeared to be about 100+ birds flying singly or in groups where they could be seen easily from the main stream of shipping. Although Crone has been on the island he was not able to confirm whether they were breeding or not.

[Here is a chance for further observation on the location of all colonies, and information and breeding dates in this area would be most valuable. When Tropic Birds first return to their breeding sites they often indulge in nuptial flights over them, groups of three or four birds flying together in aerial manoeuvres, all the time uttering their shrill screaming calls.

Breeding colonies of Gannets and Boobies can be identified likewise by the white wash of guano on the cliffs, and of Terns by the cloud of birds overhead.—*Editorial Note*].

FULMARS IN THE ATLANTIC WEST OF 55°W.

Contributed by E. I. S. Rees, Fisheries Research Board of Canada, Biological Station, St. John's, Newfoundland

In last year's *Sea Swallow* (Vol. 14, pp. 51–53) a note was published on Fulmars in the Atlantic west of 55°W. during the month of November. As a result of this a larger scale investigation was launched and the assistance of R.N.B.W.S. members and other sea-going bird watchers was sought.

During the current year a number of valuable contributions have been received from R.N.B.W.S. members, referring to both the present and past years, and together with material from other sources over 170 separate sightings have been compiled so far. It is hoped that more information will be made available during the coming year so that a worthwhile analysis can be produced. Already, some interesting features are emerging; for example, while large numbers of Fulmars may be encountered to the east of Belle Isle at all seasons, it is only during July that they seem to enter the Straits in large numbers. This is probably related to the enormous shoals of capelin which come in to spawn on the surrounding beaches at this time of the year.

As was to be expected, the information we have been able to collect so far is not evenly spread over the areas and seasons. To fill in the gaps I would be particularly pleased to hear from anyone who has been into the Gulf of St. Lawrence during the winter months or who can give more information for the region south of 43°N. I would also like to contact anyone who has watched birds from fishing vessels in the Gulf of Maine – Georges Bank area, for within the last two years fishing operations in the area have been greatly expanded by the arrival of a large fleet of Russian vessels, drift netting for herring. It would be most interesting to discover if Fulmars are taking advantage of this food source.

In an investigation of this type where we are studying a species at or near the limit of its distribution, it must be emphasised that negative records are almost as valuable as positive ones. I hope that R.N.B.W.S. members will bear this in mind, and continue to give this investigation their valuable support

THE WORK OF THE NEW SOUTH WALES ALBATROSS STUDY GROUP

The group has been continuing its work of capturing Wandering Albatrosses in nets close off the N.S.W. coast and banding them. In 1960, 246 Wanderers were banded, and a further 126 in 1961, when one boat only was working. Retraps continued to be high and some interesting records resulted.

In 1961 four of Mr. L. F. Tickell's birds were taken up, all banded in South Georgia a few months earlier. Tickell's working party on Bird Island, S. Georgia, recorded no less than eleven banded birds from N.S.W. One of the four birds caught off N.S.W. from S. Georgia was recognised at once to be one of the seventy odd birds which Tickell's party had dyed entirely pink to assist in recognition.

KITTIWAKE DISTRIBUTION IN NORTH ATLANTIC

Interim report of bird counts by Second Officer M. E. Jones

An interesting study has been undertaken by Second Officer M. E. Jones during a dozen crossings of the North Atlantic between the U.K. and U.S.A. (Hampton Roads) between December, 1961, and the end of June, 1962. Different Great Circle and Rhumb Line routes were used either to and from Cape Wrath or Bishop Rock (the northern and southern routes), according to the season.

Jones concentrated his attention on one species in particular—The Kittiwake—and made use of the census system of bird counts. A brief outline of the system employed is described as an example of a field of observation of individual species which other members may wish to emulate. It is hoped to publish the final report in the next edition of *Sea Swallow*.

Using E. M. Nicholson's original divisions of the North Atlantic in ten degree areas of latitude and longitude Jones has noted the mean of three separate counts of Kittiwakes each day (0900, 1215 and 1530 hours) in each area through which his ship passed. Then taking the total number of days within each area in each month he has determined a monthly/area mean count of Kittiwakes.

The first results are of some interest. In the northern sea route areas one notes a high concentration of Kittiwakes in the area immediately to the west of Scotland and Ireland during April, May and June, as would be expected, with a progressive falling off in numbers during these months in the areas further west in the central portion of the Atlantic. In one area in mid Atlantic at this season, however, there was a large concentration of immature birds only.

Again, while during the months of December, January and February there were large numbers of adult Kittiwakes in the central Atlantic areas between latitudes 40°N. and 50°N., these numbers fell off to a marked extent during March, April and May. For all seasons Kittiwakes became progressively less plentiful in areas west of longitude 40°W.

The report also shows the relative proportion of adult to immature birds in each area each month.

MIGRATORY MOVEMENTS OF COMMON GUILLEMOTS IN NORTH ATLANTIC

During March, 1962, Chief Officer K. D. A. Lamb, s.s. Sylvania, observed an apparent migratory movement of Common Guillemots in a westerly direction from a position 48°N., 39°W. (almost mid Atlantic). On 13th March large flocks kept passing the ship all travelling in a westerly and west north westerly direction. The next day at 46°N., 43°W., more birds were seen passing westwards, and from then onwards until Halifax was reached numbers were seen at regular intervals all flying in a north westerly direction.

SOOTY TERN IN NEW ZEALAND WATERS

J. A. F. Jenkins reports that a Sooty Tern landed on board M.V. Kaitangata on 30th July, 1961, about eight miles off Cape Reinga (New Zealand) at 34°32'S., 172°31'E. This bird was washed aft from the

fo'csle head, captured and kept on board overnight. Next day it flew off, but returned within an hour, staying on board until the ship reached Auckland. Two days later it was found dead. Strong north westerly gales had been blowing at sea for 48 hours which may have accounted for it being so far south.

It is believed that there are only nine previous records of this species having appeared off New Zealand.

PHALAROPES AND WILSON'S STORM PETRELS IN ARABIAN SEA

Reports of large concentrations of Northern Red-necked Phalaropes gathering off the coast of Oman outside the breeding season are becoming a hardy annual in successive *Sea Swallows*. Seafarers alone have the privilege of observing this fascinating sight.

On 6th October, 1961, off Ras Madraka, Captain W. L. N. Fisken reports: "In the whole area between 19°N. and 23°N. flocks of Red-necked Phalaropes *(Lobipes lobatus)* were settling and taking off, resting on the calm water until the ship was within a cable's distance. The stripe down the back of the neck was very distinct. Amongst these flocks were many Wilson's Storm Petrels. It was interesting to contrast the rapid flight with fast moving wings of the phalaropes with the fluttering flight of the storm petrels."

LAND BIRDS

Birds of Prey on the High Seas

Captain H. G. Chafer, M.V. Roscommon, sends the following report of predation on the high seas during a passage from Balboa to Brisbane. All the ship's company took the greatest interest throughout.

"22nd November, 1961, 200 miles S.W. of Capa Mala—A bird which appeared to be a Goshawk came on board. It stayed until noon on 29th November when the ship was in position 12°S., 117°W., the nearest land being 900 miles distant.

The bird usually killed between six and fifteen small sea birds each day, perching on the foremast tabling to devour its prey. Upon sighting its victim it would dive steeply from its perch to about two feet above the sea, overtake its quarry and snatch it out of the air in its talons. On returning to the mast table it would start to pluck its prey immediately, as often as not beginning its feast while its victim was still alive, making a complete meal, bones and all. Many regurgitated pellets were found around the foot of the mast."

[We have several other well authenticated accounts of birds of prey visiting ships at sea. What is more, in all cases they have settled in their unusual surroundings and continued to hunt and capture sea birds with no apparent desire to continue on their original flight path.

Previous cases, with the exception of Gyr and Iceland Falcons in the North Atlantic, have all referred to Peregrine Falcons. We have had instances in the North Atlantic, Mediterranean, Red and Arabian Seas, off North Borneo, and an almost identical case reported by Captain J. B. Mitchell when on passage from Cape Mala to Tonga Island. In this case the Peregrine remained on board for eight days while the

ship travelled 2,500 miles, and usually made eight sorties each day capturing storm petrels.

In every case reported the falcon has used the foremast tabling as its platform.

At the time of writing we await further details from Captain Chafer to confirm whether indeed his bird might not have been a Peregrine.—*Editorial Note*]

A TRIP UP THE GAMBIA RIVER

By Surgeon Commander David Dalgliesh, M.V.O., R.N.
(H.M. Yacht Britannia)

During the Queen's tour of West Africa last autumn one small event stood out above all the pomp and ceremony of the old chieftains and the newly independent states. This was a short boat trip up a small creek off the Gambia River. As we passed slowly up in the greenish waters from Bathurst dolphins played around the bow, some leaping up to twelve feet clear of the surface. Low mangrove jungle covered the distant shores with occasional tall trees, cotton trees, casuarinas and so on, indicating more solid ground; and there was James' Island with its ruined fortifications, a reminder of the thriving slave trade that once existed here. The Yacht anchored forty miles up river where it was still a mile wide. Then, in mid-afternoon we moved off in the ship's boats in dead smooth water that perfectly mirrored the Yacht, but its calm deceptively masked a six-knot current. The original object of this little expedition was to look for crocodiles—Prince Philip shot one—and we tagged along in the rear to see what there was to see.

Even half-a-mile from the muddy shore, uncovered by the falling tide, one could see the white of egrets and pelicans without using glasses. As soon as we entered the creek, not fifty yards wide, there started in the space of about two hours, the most fascinating parade of bird life I have ever seen. The birds were remarkably tame and one could well believe that the scene they presented in their muddy and jungly surroundings had not changed for a million years: although in other ways it was like a visit to a Zoo without the unpleasantness of cages, other people and toffee papers.

Sitting in the low trees, and watching us with apparent interest were pelicans, spoonbills, Purple and Black Herons, while higher up a group of Sacred Ibis turned their strange heads towards us, then slowly and unhurriedly took flight showing their red "arm-pits." Perched every so often were neat Pied Kingfishers while the incredible blue body and red bill of a Gambia Blue-breasted Kingfisher would flash through the branches, though they were rather shy compared to their pied relatives.

The creek narrowed as we phut-phutted along until we could see both banks equally well, and at every turn more birds became visible. Our wash made the mud-hopper fish hop even more over the mud. A crocodile would stare at us with a yellow, evil eye before slithering down the mud into the water. The strange mystical Hammerhead walked away into the low branches and an African Green-backed Heron would "freeze" where he stood.

On the treetops sat brilliantly coloured bee-eaters occasionally flying after food and flashing their transparent red-looking wings. Suddenly three or four parakeets flashed chattering across our heads, from one bank to the other, their long green tails being most obvious in spite of their swift flight.

In more open country Cape Dikkops and Wattled Plover stared unblinkingly and unmovingly as we passed by. A Goliath Heron stood motionless—red and grey and wise looking.

Surprisingly our own Common Curlews were there in flocks, flying and calling to remind us of home.

Soon the treetops were meeting overhead, ariel roots brushed our faces, and the strange snakebirds flopped out of the trees and swam with only their heads and necks out of water. Hornbills and vultures flapped across in the fading light, while unusual and haunting bird cries came out of the apparently unending mangrove jungle as we chugged back to the Yacht through the sudden sunset.

We had seen an amazing display and variety of birds but the most memorable sight of the afternoon, and one I shall cherish for ever, was a flight of about a dozen Crowned Cranes flying just over our heads, their red wattles and golden crests vivid in the tropic sun.

CROWNED CRANES—GAMBIA RIVER
Photo by Lieut. Michael Gordon-Lennox, R.N.

SULA SGEIR—
A BRIEF SURVEY OF ITS SEA BIRD COLONIES MAY 1962

By Lieutenant I. D. Teesdale, R.N., (H.M.S. Belton)

North Rona lies some forty miles north of and almost equidistant from Cape Wrath and the Butt of Lewis. Looking westward from it Sula Sgeir, ten miles away, appears tiny and inhospitable, a mere handful of jagged rocks. Here, however, come thousands of sea birds every year to nest, among them the gannets, whose young are harvested for food in the autumn by the people of Lewis.

This year the Nature Conservancy wished to form some idea of how greatly the removal of young gannets affects the Sula Sgeir population; and for this purpose an aerial photographic survey of the island was made in early May, from which to estimate the number of breeding birds. But such photographs are not easy to interpret without some prior first hand knowledge of the place in question, so the scientist in charge of the investigation, Dr. J. Morton Boyd asked the Flag Officer Scotland whether it would be possible for a naval ship to land him on Sula Sgeir for a few hours. This job was given to my ship, H.M.S. Belton.

By 1300 on the 21st May the ship was circling the island, while I looked for a possible landing place. The chart, inset in a corner of 3331, shows no soundings at all, and the Pilot merely warns against a close approach from N.W. or S.E. There was a force 3–4 wind from E.N.E. with a low swell from the north west, and most of the island seemed edged with surf and spray. However, I decided to make an attempt, and lowered the boat five cables south west of Sron Na Lice, the southern tip. I accompanied Dr. Boyd and his assistant, a Conservancy Warden for Ross and Cromarty.

As we passed the off-lying rock Gralisgeir I looked up. The sky overhead was teeming with gannets, hundreds, perhaps thousands of them, wheeling, circling, and gliding—it seemed incredible that they could avoid colliding. Another thought struck me, and I decided that an upturned face and open mouth was not the most prudent posture.

The cliffs of Sron Na Lice began to tower above us, and all at once the smell of the place, warm and powerful, was borne down to the boat, provoking some characteristic comments from the crew. Suddenly, when we were fifty yards from the rocks, a small land bird was seen, flitting about with the distinctive actions of a flycatcher; only this bird had what seemed like white blobs on either side of the end of its tail. "Red-breasted Flycatcher," said Dr. Boyd without a second's hesitation. We were off to a good start.

Then the business of landing on claimed all my attention. The advice of the Lewis people, and indeed of the two books closely describing a visit to Sula Sgeir, was that the only landing place available was on the east side, which was out of the question in the wind and sea conditions then prevailing. So we advanced up the west side, and very shortly found that the rocks lying just off shore at the middle point of the island, but closing to within a yard or so of it further north, provided a perfectly sheltered harbour of almost still water. Here we discovered an inlet running almost to cut the low central

part of the island in two; and here Dr. Boyd, his assistant and I, watched by a party of curious seals clambered ashore.

The next problem was to get to the nesting birds on the top of the cliffs. As we made our way up I found myself suddenly in the midst of a guillemot rookery, the birds standing shoulder to shoulder, cawing and cackling, no doubt in anger. A few were bridled birds, perhaps one in twenty. I had never seen these birds so close before, and could only stand and look at them, fascinated by the beautiful neatness of their plumage, the constant moving of the heads, the shufflings, arrivals and departures, the endless chattering. I felt a sudden and powerful fondness for them, a sense of privilege at being able to look so closely at their private lives; and when I saw an egg crushed under my boot I felt momentarily like a murderer. Fisher and Lockley, writing in the New Naturalist book *Sea Birds*, permit the reader to believe that they have been similarly entranced by the scene in the common guillemot colony, so perhaps I need not be ashamed of my feelings.

The top of the island is mostly bare rock, covered however in parts with a close turf of sea pink, and showing occasional tufts of scurvy grass and matricaria. (These were the only plants I saw.) There were several tumbled bothies, and one substantial, intact structure, wonderfully built of large flat stones arching over into a complete roof. Among these, and beside or under the rocks, or just plainly in the open, every yard or two throughout the island except in the gannets' colony, were nesting Fulmars. These birds at your approach spread their wings, throw forward the head, and eject through the mouth towards you a squirt of revolting liquid, orange, green or brown. Although nowhere densely packed, the Fulmars must comfortably outnumber even the gannets on Sula Sgeir.

I only had time to spend a few minutes in one of the gannet colonies, which occupies part of the southern end and highest part of the island. It was less pleasing than the guillemot ledges; the birds sat on untidy heaps of seaweed, and the eggs, surprisingly small, are not the lovely various blue of the guillemots but so caked and covered with refuse as to be a uniform muddy brown. A few Puffins, however, standing on a rock nearby, redeemed the scene; their appearance, dignified, absurd and beautiful in some impossible way all at once, made perhaps the most powerful impression of the day.

We looked among the bothies for Leach's Petrels, but found none. For the rest, there were small numbers of Razorbills, and several gulls' nests, presumably of Herring-gull or Black-back—I saw none of the parent birds. Rock-pipits were also present.

We returned to the boat, and back on board the Belton. It would be difficult to describe my feelings. Perhaps the expert, the scientific observer would not try, but confine himself to recording the objective data of the visit. I think, however, that the impression made on the observer, when it is as strong and curious as I found this to be, is in some ways of equal interest. It was an excitement in no way similar to that which accomplishes one's encounter with some rarity or first sighting of a new species; thus the seeing of the Red-breasted Flycatcher was soon forgotten at the time, the accident of its presence hardly more relevant to us than to the thousands of other birds on the island. And yet excitement there was, in greater degree than that attending any ornithological experience I have so far had. One's normal contact with birds is of that remote and fleeting sort that characterises, say, the ticket collector's relationship with the rush-hour crowds—you see

them, perhaps they see you, but not closely, not for long; and of their real lives, the actions, motives and so on that go to make up the detailed pattern of their existence, of all this one has barely a glimpse. On Sula Sgeir, for once, this was not so. Here the intimate, individual lives of the birds were brought suddenly close up, as close as those of animals on a farm, so that the observer was almost a participator as well. The feeling of intrusion, of privilege, remains in recollection the most powerful emotion. An unexpected result of a remarkable occasion.

ANDEY ISLAND. ICELAND EAST COAST MIDSUMMER NIGHT, 1962

By Captain G. C. Leslie, o.b.e., r.n.
(Captain, Fishery Protection Squadron, h.m.s. Duncan)

Fishery protection patrols off Iceland and North Norway give many opportunities for 'bird watching' and visits to unusual places.

June 24th–25th, 1962, saw h.m.s. *Duncan* anchored for the night in Faskrud Fjord on the east coast of Iceland (Admiralty chart 1550).

At 0100 in broad daylight the motor whaler was lowered and a small party of officers went ashore to neighbouring Andey Island. This low grassy island had looked a promising place for birds, and it proved to be most interesting. The first thing that happened as we arrived alongside the rocks was that an Eider duckling, which had become separated from its mother, swam quietly onto the First Lieutenant's hand. During the next half-hour nesting Eiders were seen everywhere. There must have been at least a thousand nests on the island, and at times it was difficult not to tread on the eggs or newly-hatched young. The ducks themselves were reluctant to leave the nests and had great difficulty in taking off from the rough tussock grass surface.

There were many other birds present and the incredibly tame Red-Necked Phalaropes on every pool were fascinating. Oyster-catchers were present in large numbers and there were some geese breeding. We surprised one goose on her nest, but were unable to make a positive identification as she rose from her nest in a hurry right under our feet. She was probably a grey lag.

Having thoroughly explored Andey, we took to the boat again and set off for the 500-foot high rocky island of Skruden where we had already seen a small gannetry. This island was alive with nesting sea birds and we identified Puffins, Common Guillemots, Kittiwakes and Gannets. The latter were in a colony of about 350 nests. The possibility that this colony had not been seen before crossed our minds. By this time the wind was blowing cool from the north and although the sun had just come up we were so cold that we reluctantly turned the boat for home and bed some four miles away.

This midsummer night will live long in our memories, not only for the fascination of the bird life, but for the wonderful surroundings of fjord and mountain, where at this time of the year sunset merges into sunrise.

BIRD LIFE IN N.W. SOUTH GEORGIA

By Lieutenant R. O. Morris, R.N. (H.M.S. Owen)

During her 1960–61 surveying season H.M.S. Owen's main task was to improve the charting of South Georgia, particularly the western end. An advance party of seven men, of which I was one, was sent down ahead of the ship, arriving on 10th December, 1960. We remained ashore under canvas at Elsehul and Bird Island until the ship arrived, on 12th February, 1961, from which date parties from the ship and shore camps, and the ship herself, worked in the area until 7th April. This report and its accompanying map attempt to portray the distribution of bird life in the north west of South Georgia during this time. It is compiled partly from my own observations, but also from information gathered by members of the camps at Elsehul and Bird Island, and from observations by H.M.S. Owen's officers of the watch, without which it would be even more incomplete than it is now.

The area consists of four main parts. At the extreme west are the Willis Islands, dominated by the 1,800-foot peak of Main Island. Separated from them by a strait about 1½ miles wide is Bird Island, lying close off the north west of the mainland, rising to 1,200 feet and bordered on the north by sheer cliffs. The western end of the mainland is cut off from the remainder of South Georgia by the stretches of water known as Elsehul and Undine Harbour. It is composed of a ridge of mountains rising steeply to 1,500 feet, with flatter tussock-covered patches on the north west and south east. To the east of the harbours lies a rolling tussock-covered area dotted with tarns, shut off from the sea to the north by the 2,800-foot mass of Snow Peak, at the foot of which runs the Hope River, one of the largest rivers in South Georgia.

The sheer numbers of birds over the whole area are most impressive. The slopes of Main Island are packed with Macaroni Penguins for the first 300 feet or more from the water's edge, and the ground above them is packed with Black-browed and Grey-headed Albatrosses to the top of the vegetation. On Bird Island every suitable space is dotted with the huge white forms of the Wandering Albatross, and the ground is honeycombed with petrel burrows. All day the seas surrounding the area are crossed and recrossed by birds, but it is at twilight that the surface of the water is covered by a carpet of Prions returning to the land. The tameness of the birds is also remarkable. On one occasion when I was being landed by helicopter the aircraft's wheel was put down no more than four feet from a Wanderer's nest, the occupant (adult) of which looked incuriously on while two surveyors piled themselves and their gear out beside it.

The following birds were observed breeding in the area:—

Wandering Albatross	*Diomedea exulans*
Black-browed Albatross	*Diomedea melanophris*
Grey-headed Albatross	*Diomedea chrysostoma*
Light-mantled Sooty Albatross	*Phoebetria palpebrata*
White-chinned Petrel	*Procellaria aequinoctialis*
Giant Petrel	*Macronectes giganteus*
Pintado Petrel	*Daption capensis*
Snow Petrel	*Pagodroma nivea*
Dove Prion	*Pachyptila desolata*

GREY-HEADED ALBATROSSES—ABOVE ELSCHUL—SOUTH GEORGIA
Photo by Lieut. R. O. Morris, R.N.

Georgian Diving-petrel	*Pelecanoides georgicus*
Wilson's Storm-petrel	*Oceanites oceanicus*
Dominican Gull	*Larus dominicanus*
Wreathed Tern	*Sterna vittata*
Great Skua	*Catharacta skua*
King Penguin	*Aptenodytes forsteri*
Gentoo Penguin	*Pygoscelis papua*
Chinstrap Penguin	*Pygoscelis antarctica*
Macaroni Penguin	*Eudyptes chrysolophus*
Sheathbill	*Chionis alba*
South Georgian Teal	*Anas georgica*
Antarctic Pipit	*Anthus antarcticus*

In addition, the following species were seen in the area, but no proof of breeding was found:—

Black-bellied Storm-petrel	*Fregetta tropica*
Magellan Penguin	*Spheniscus magellanicus*

I have treated most species individually, noting the general distribution and breeding areas, and any unusual or interesting observations on the birds. No attempt has been made to describe the appearance or habits of any species except as it appears to differ from that described in Alexander's "Birds of the Ocean" and Murphy's "Oceanic Birds of South America," the two works to which I had access before and during my stay in South Georgia.

The following remarks should be read in conjunction with the map of the breeding sites. Skuas and Antarctic Pipits have not been included since they are distributed generally. In addition, the plotted observations of the South Georgian Teal refer to the number of birds habitually found frequenting the limited areas where these birds occur, and not to actual breeding records.

The WANDERING ALBATROSS nests on flattish tussock moors, avoiding the steeper slopes favoured by the smaller albatrosses. Individual nests are usually at least fifteen to twenty feet apart, and solitary nests are by no means uncommon. The nest is a heap of grass and mud about four feet round by three high. Both birds help in the building of the nest, and I have seen one bird collecting material from close around the nest, pass it to its mate who was sitting on the nest to build into it. This ceremony was preceded by the bill-rattling and nuzzling that start the mating dance. The full ceremony of the mating dance, with bill-rattling, nuzzling of partners and pirouetting with wings spread was frequently seen being performed by birds swimming up to a mile or more offshore.

The description of the adult Wanderer in Alexandria is rather misleading. Most birds have a considerable amount of black on the upper surface of the wing, and only rarely is it confined to the primaries. The dark cap is present in young adults of both sexes and is lost by both as they get older. In March Mr. W. L. N. Tickell started dipping Wanderers to ensure identification of Bird Island Wanderers at sea for his movement studies, and by the middle of the month the startling sight of a bright magenta albatross was not uncommon off the island.

The two smaller Diomedeae., the GREY-HEADED and BLACK-BROWED ALBATROSSES, are very similar in appearance and habits. They are collectively known on South Georgia as Mollymawks or "Mollies." Both nest in closely packed rookeries on steeply sloping tussock. A pre-

dominantly Grey-headed rookery always seems to have some, sometimes many, Black-browed nesting amongst them, but a Black-browed rookery is usually exclusively occupied by the one species. Most of the larger islands in the Willis group have mollymawk rookeries on them, sometimes of considerable size. It was rarely possible to approach closely enough to determine which species predominated.

The LIGHT-MANTLED SOOTY ALBATROSS nests solitarily, or in groups of two or three. The largest group I found together was six. The young are at first indistinguishable from young mollymawks, but soon develop a dark mask circling the eyes and joining them over the beak.

GIANT PETRELS, known throughout the island as Stinkers, almost all have very pale, if not white, heads and necks, darkening to grey-brown on the back and wings. A very few white-phase birds are present in the area. Only one was ever seen at any one time, but I suspect that at least three exist. Further down the coast, at Right Whale Bay, there are at least five of a Stinker population of about sixty. The birds are pure white, spotted with small black spots which are only noticeable when close to, when the bird has the appearance of an avian Dalmatian. They nest among the Wanderers on flat tussock. When they have eggs or young nestlings they sit most tenaciously, but as soon as the chick is old enough to defend itself against Skuas and other predators the parent makes off at the slightest alarm.

WHITE-CHINNED PETRELS, known locally as Shoemakers, and PRIONS are both very common throughout the area. On parts of Bird Island it is impossible to walk without sinking into their burrows. These are usually dug in tussock, starting into the base of a clump, and may be as much as eight feet long. After rain, inhabited burrows may be distinguished by the fresh mud thrown out by the occupant in his cleaning-up operations. When digging out these birds I was always impressed by the extreme cleanliness of the bird despite the sometimes very damp soil of the burrow. In the evenings about sunset huge numbers of Prions converge on the breeding grounds, flying in masses like great carpets over the sea. At these times their flight has a steady purposeful air unlike their usual jerky, rolling gait, and seldom do they show their white underparts to any observer above them. On foggy nights large numbers flew on board, where they shuffled into the nearest corner, to be found and set off next morning.

While we were ashore and shipless we saw very few PINTADO PETRELS, except when a visiting sealer appeared, when large numbers of them would converge on the vessel, and disappear equally suddenly on her departure. When the *Owen* was in the area she was seldom without a trailing flock of these delightful birds. A very few were found breeding, on ledges on rocky cliffs.

A very few SNOW PETRELS were seen in the area, mainly on the cliffs to the west of Elsehul, where they were observed perching on ledges, and are assumed to have been nesting. They were also observed at sea both from and off Ramp Rock, at the extreme west of the Willis Islands.

GEORGIAN DIVING-PETRELS were common at sea, and when anchored offshore at night many came on board, attracted by the lights of the ship. They were more regular visitors than the Prions, but never reached the numbers of the latter on the foggy nights when the main Prion invasions took place. They were never seen above ground ashore during

daylight. Groups of nest-burrows, of which those which were occupied belonged to Diving-petrels, were found in moraine slopes fairly high up on Bird Island. These burrows were three to four feet long, and never straight. Several had two entrances, the total length then reaching six or seven feet, and one took the form of a descending spiral, the nest chamber being directly under the entrance, about two feet down.

Two species of STORM-PETREL were observed, the Wilson's and the Black-bellied. Several specimens of Wilson's came on board at night, and all those examined had orange webs to their feet. Both on Bird Island and on the Paryadin ridge they were seen flying over 700 feet up on the mountainside. Nests were found on scree near sea level, in crannies in the stones. At sea towards the west the Black-bellied became the more common bird, particularly off Main Island. I suspect that it breeds on either Main or Trinity Island, if not on both, but was unable to land to search for nests.

Many DOMINICAN GULLS live around O'Connor Island, in Undine Harbour, and also several in Elsehul and round Johnson Cove on Bird Island. Both there and on the east end of Main Island numbers of very young birds were seen, those in Elsehul in February being still hardly able to fly, so nesting must be assumed, although no occupied nests were found.

Nests of the WREATHED TERN were found on the Paryadin Ridge at a height of about 700 feet, where a colony laid their single eggs in scrapes in the moraine plain. Only five eggs were found, but from the large number of birds (some fifty or sixty) and their agitated behaviour, a population of about twenty nesting pairs is assumed. Another small colony bred on Cape Farewell, where five nests were found on a small ledge of bare rock. From the restricted nature of the site, and the small number of birds present, it is unlikely that there were many more. A third colony was seen from seaward on a large flat shelf at the foot of the cliff on the north face of Bird Island peak. About thirty birds were sitting on the ledge, and on the approach of the boat several got up and attacked vigorously. It was not possible to land to confirm nesting, but immature birds were later observed in the vicinity.

SKUAS abounded throughout the area, and Skuas' nests were to be found everywhere below about 500 feet. The nest was usually a scrape in the ground between tussock clumps, or on a flattish rock, lined with grass and feathers. The position was always betrayed by large numbers of Prion and small Petrel bones and wings scattered round the nest. The nests usually start off with two eggs, but frequently only one young is reared. No skuas' nests are plotted on the map. Their presence, thinly dotted throughout the area, can be taken for granted everywhere except on the high ground north of the Hope River, on the Paryadin Ridge, and on the highest parts of the main ridge of Bird Island.

BLUE-EYED CORMORANTS were common throughout the area, but only three breeding places were discovered, two on Bird Island and one on the mainland opposite. They were already sitting on eggs on our arrival on 10th December, and were beginning to desert their nests by the time we left at the beginning of April. During our last

few days in the area, many groups of ten to fifteen birds were observed off the western rocks flying purposefully north-west.

The most common Penguin in the area is undoubtedly the MACARONI, whose closely packed rookeries line the shores of Main and Trinity Islands in the Willis group. Large rafts of fifty to a hundred birds are frequently encountered at sea off the outer islands, but they are only rarely seen ashore away from their rookeries, and one or two favourite landing places close to them. The height to which they climb is astounding; in the rookery on the north shore of Main Island numbers of birds nest right up on the shoulder of the peak at about 900 feet. In large rookeries definite paths can be seen, tracks along which perpetually moving queues of Penguins hop through the unmoving masses of their fellows. They cling agilely to the slightest irregularity in the rock both when landing and when climbing about on land.

The GENTOO, though it cannot compare with the Macaroni in sheer numbers, is more often seen on the mainland, as it wanders freely around the coast, sometimes a considerable distance from the nearest rookery. Their colonies are usually a little distance from the water's edge, on tussock which they soon trample into a muddy morass. From the appearance of many of the sites I visited, it would appear that the rookery creeps from year to year, nests being made in the tussock round the edge of last year's bare patch. In this way a circle of four or five small rookeries may creep outward from one original site. In this part of South Georgia a single rookery seldom exceeds a total of 300 pairs. Unlike the Macaroni, the Gentoo walks, placing one foot deliberately in front of the other, appearing very much more sedate. In the water they swim either with the back above water and tail held high, or else entirely submerged, in which case they jump clean out of the water from time to time, sometimes, if excited, inadvertently somersaulting.

KING PENGUINS were not plentiful in the area, although there were almost always some at the head of Undine Harbour, in Elsehul, and less frequently in Jordan Cove on Bird Island. One in Undine was incubating an egg from mid-December to mid-February, when our camp was moved and further observation became impossible there. We hope she hatched it successfully.

One pair of CHINSTRAP PENGUINS had a nest with one egg in a Gentoo rookery on Bird Island. This was the only record of this species except for an isolated glimpse of one in Elsehul.

A solitary MAGELLAN PENGUIN was sighted swimming in Elsehul on 3rd February. Either the same bird or another of the same species was found by W. L. N. Tickell moulting on the beach at Johnson Cove, Bird Island.

SHEATHBILLS abound wherever there are concentrations of either seals or penguins, but their nests are few and far between. They are built in largish crannies in rocks, and are untidy heaps of tussock stems and rubbish, which often betray themselves by trailing out of the entrance to the crack. The young, some of whom were hatched by the beginning of February, are at first completely bare, and look exactly like pigeon squabs.

Small numbers of SOUTH GEORGIAN TEAL were seen both on the

mainland around and to the south east of Undine Harbour and on Bird Island. The total population in this area of the mainland is unlikely to exceed one hundred, and may well be less. There are certainly rather more on Bird Island, possibly as many as two hundred, but probably nearer one hundred and fifty. They are comparatively wary little birds, and seem to live on both salt and fresh water. Their nests are well concealed. Although ducklings were occasionally seen scuttling through the tussock, only one nest was ever found. This was a neat, well-built cup of tussock stems concealed in the heart of a large clump of grass some fifty yards up a hillside from the nearest water. Three of these birds were captured on Bird Island for the Wildfowl Trust, of which two have since died. At the time of writing the third is still thriving, having survived four months of captivity and the passage of the tropics, and it is hoped to deliver it safely to join the two females already at Slimbridge.

The smallest bird on the island is the ANTARCTIC PIPIT, a delicate little bird looking like a stocky version of a Meadow Pipit, but scarcely bigger than a sparrow. These are present, usually in pairs, all over the tussock areas and sea shores, out to the Willis Islands. Their nests, tiny woven cups in the hearts of tussock clumps, are very difficult to find, and I only saw two in my time ashore. Both had three tiny, almost spherical eggs. Because of the difficulty of finding them, and thus the impossibility of confirming the areas of breeding, no mention of this species is made on the map.

STORM PETRELS ON THE U.K.—CANADIAN TRADE ROUTES

By Captain E. F. Aikman, M.N.

During the period 1953–61 Storm Petrels have been recorded in my notes all the way across the ocean, from the Scilly Isles to Belle Isle and Cape Ray. Three species may be expected in this region—Leach's *(Oceanodroma leucorhoa)*, Wilson's *(Oceanites oceanicus)* and the British *(Hydrobates pelagicus)*, but I find it very difficult under sea-going conditions to distinguish the various recognition features as given in the books. They may all be broadly described as small dark birds with a white rump, but those on the western side of the ocean are recognizably different from those on the eastern side, the dividing line being about 35°W. longitude.

West of this limit the birds are larger, the wings longer and more pointed, and they do not follow the ship. These are presumably Leach's Petrels, but I have never been able to determine certainly whether or not the tail is forked. Of the flight I cannot do better than say that it agrees well with the description given by W. B. Alexander as "rapid and darting."

East of 35°W. longitude all the storm petrels seen have been following the ship. "Weak and fluttering" very well describes their flight, and they follow closely the contours of the waves, flying to and fro in the wake of the ship. It would seem that these could be either Wilson's or British. On four occasions I have noted a white mark on the under side of the wing (which Alexander says is diagnostic of the British Storm Petrel), the most westerly of these being at about 19°W. On some occasions I have thought that there was a difference in the size of the birds that I was seeing, but I do not consider that I can rely on this distinction, and I have never seen feet projecting beyond the tail.

There is no mention of the habit of following or not following ships in *Birds of the Ocean*, but several other books which I have consulted agree that Leach's does not follow, whereas Wilson's and the British do so. On the other hand Dr. Bourne has stated in the *Sea Swallow* that the British Storm Petrel does not usually follow ships.

Due to this difference in behaviour it is very difficult to compare the numbers of storm petrels seen on the two sides of the ocean. On the eastern side the maximum numbers recorded at any observation have been 'approximately four dozen,' July 1959, at 52°N., 16°W., and July 1960, forty miles west of Bishop Rock, but 62% of the observations have involved less than one dozen birds. On eight voyages storm petrels have been seen on two successive days, (one westbound and seven eastbound voyages), and on three voyages they have been seen on three successive days. These latter were June/July 1959 (long. 21° to 7° W.), September 1960 (long. 34° to 11°W.), and June 1961 (long. 25°W. to Scilly Isles).

West of long. 35°W. I have only attempted to record numbers when these have been very small and 54% of all observations have concerned probably less than one dozen storm petrels during the day. On four occasions I have recorded 'many,' twice in May 1955 at 46°N., 50½°W., and 49½°N., 47°W.; in June 1955 at 49°N., 47°W., and in May 1957 at 47½°N., 49½°W. In June 1960 at 46½°N., 53½°W., I

recorded 'very many.' On nine voyages storm petrels have been seen on two successive days (five westbound and four eastbound voyages), and on one voyage they were seen on three successive days, but only a few individuals. This was from 57° to 43°W. on E track in May 1956.

The following table shows for each month the number of voyages made (east and west) and the number of occasions when storm petrels were sighted.

		Sightings				*Sightings*	
		W. of	*E. of*			*W. of*	*E. of*
Month	*Voy.*	35°W.	35°W.	*Month*	*Voy.*	35°W.	35°W.
Jan.	4	—	—	July	14	5	10
Feb.	4	—	—	August	11	8	7
March	7	—	—	Sept.	10	6	10
April	12	5	—	Oct.	9	—	3
May	14	18	3	Nov.	10	—	—
June	15	15	11	Dec.	9	—	1

Total number of voyages: 119

It will be noticed that the birds were both first and last seen a month later on the east than the west side of the Atlantic, where a single bird was also seen in December.

Ninety-eight voyages were to or from the English Channel, fifteen via Inishtrahull (all April – October) and six via the Pentland Firth (5th April – October). Reference to the map will show that on the eastern side of the ocean storm petrels were sighted north of the Bishop Rock—Belle Isle track on only three occasions. These were in June and July 1955, and a single bird in each case (excluding a bird-in-hand record mentioned later).

Is there any significance in the fact that although these observations cover a wide range of longitude the birds are seldom seen on successive days? Do they at any one time occupy a comparatively small part of the ocean? My records, of course, give no indication of the range in latitude. On the 31st May this year (1962) Captain Walgate (westbound) reported fifteen to twenty British Storm Petrels following in about 50°25'N., 13°30'W. I passed through the same region (eastbound) the next day but twenty-five to thirty miles further north and saw none.

In October 1960 Walgate (then Staff Commander of the "Empress of England," Liverpool to Montreal) was so fortunate as to have both a British and a Leach's Storm Petrel on board. The British arrived on the 24th October in 56°07'N., 32°00'W. (845 miles from Belle Isle). It was very tame and when released just east of Belle Isle two days later was reluctant to leave the ship. He says that the white patches under the wings were an excellent means of identification, but considers that I am lucky to have seen these patches in flight as they are not conspicuous.

The Leach's Petrel was found on the morning of the 26th October, having probably come on board during the night just outside Belle Isle, and was released the following day in the Gulf of St. Lawrence. It too, was quite unafraid, and the forked tail was obvious when seen in the hand.

Walgate has also observed the projecting feet of Wilson's Petrels, but says that they are about as easy to see as the white mark under the wings of British Storm Petrels—which is in fact not at all easy. Neither of us regard ourselves as experts, and we are dealing with observations

from fairly big ships, at speeds of fifteen to twenty knots, conditions which do not facilitate the identification of these small birds.

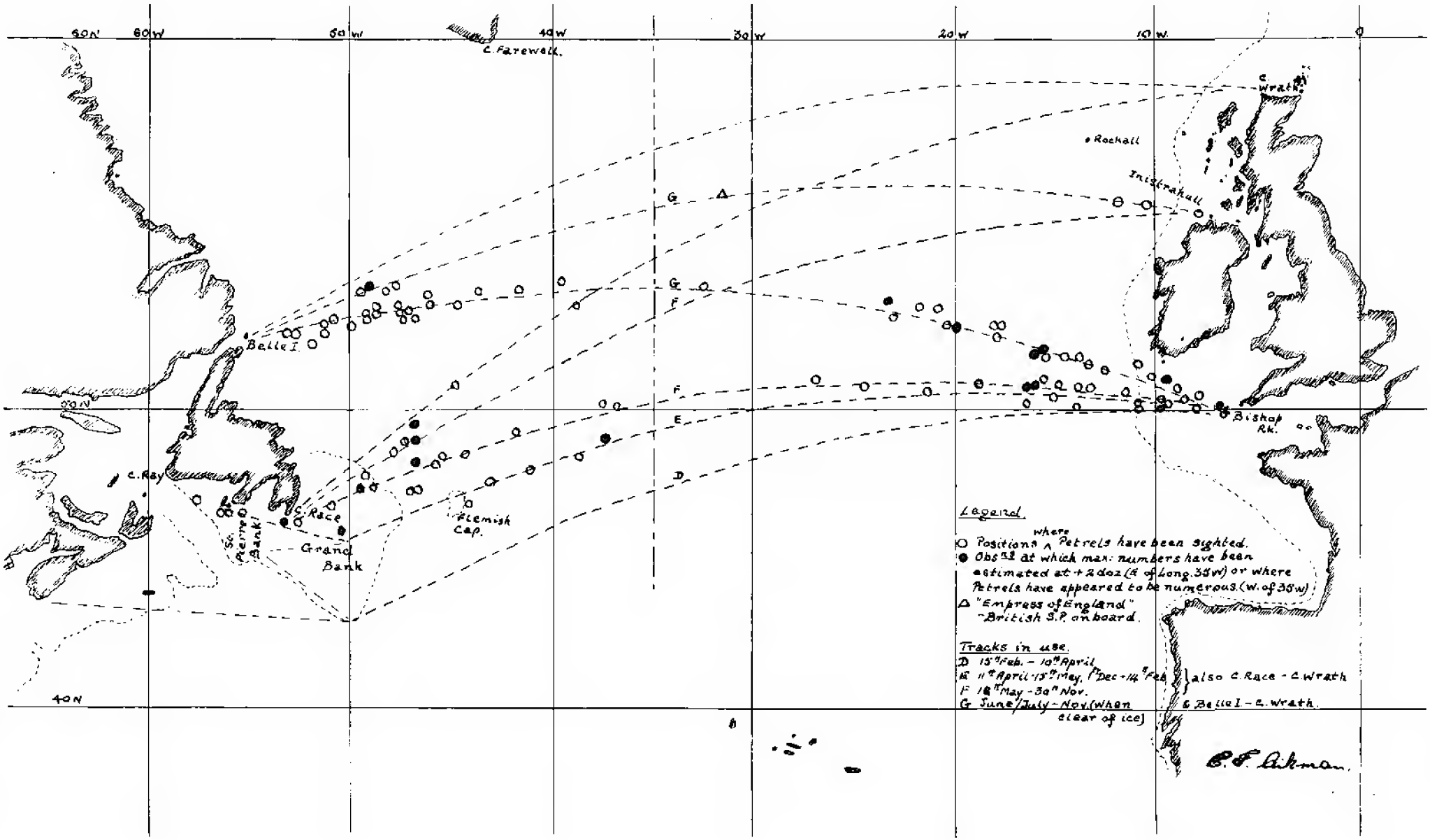
Mr. E. I. S. Rees, in the course of correspondence on the subject of Fulmars (cf. *Sea Swallow* 1961), has very kindly given me the following information on Storm Petrels.

Mr. S. W. Gorham of the National Museum of Canada was on the eastern edge of the Grand Banks from the 13th–20th September, 1961, and reported Wilson's Petrels at all fishing positions in numbers up to twenty-five. Leach's were present at an approximate ratio of one to fifteen Wilson's on the northern part (lat. 46°30'N.), but were absent at the southern fishing positions (lat. 44°N.). Mr. Rees himself was on the Grand Bank and St. Pierre Bank from the 8th–19th May, 1962, and all petrels seen were Leach's. At one position on the south western edge of the Grank Bank he recorded one hundred and fifty petrels, and fifty near the St. Pierre Bank, but otherwise the numbers were small. He says that Wilson's Petrel seems to occur on the Grand Banks mainly during July to September. Since I have been keeping these records I have only once crossed the Grank Banks later than June (July, 1957), and then made no observations of birds owing to fog. Fog and ice frequently interfere with bird watching in the vicinity of the Newfoundland coast.

(Note by W. R. P. Bourne. It is a particular pleasure to see members producing systematic analyses of large series of their own observations, and incidentally correcting some of my rasher armchair statements in the process. In point of fact, after looking at large series of observations, it now appears that while Wilson's Storm-petrels are probably the species which most persistently follows ships, British Storm-petrels certainly do it at times though by no means so regularly, while most other species also do it occasionally, though most of them not often.

I found that the feet were quite easy to see extending beyond the tail in Wilson's Petrels seen following the ship off Portugal and West Africa, though I could not see the yellow webs. British, Madeiran, and Leach's Storm-petrels were only seen in the distance and did not follow the ship then and in the case of British and Leach's Petrels seen around breeding colonies in the British Isles. Wilson's Petrel had a distinctive skimming flight back and forth over the wake, and Leach's Petrel an equally distinctive swooping, bounding flight. The British and Madeiran Petrels were more difficult to recognise because they were intermediate in appearance, but the British Storm-petrel appeared very small with a fluttery flight, though I could not see the white under-wing, while the Madeiran Storm-petrel appeared much larger with a more bouncy flight.

We are having difficulty with the identification of the dark storm-petrels even from bird-in-hand forms. It would be helpful if careful notes are made not only of all measurements, but also of rump markings, with sketches. Captain Walgate's record of a British Storm-petrel in the mid Atlantic is very interesting, since it has not been clear how far out to sea they go. It will be seen that Captain Aikman's map confirms other observations that they seem to occur most abundantly just off the edge of the continental shelf.)


70W
60W
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0
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C. Farewell.
C. Wrath
Rockall
Inishtrahull
Belle I.
Bishop Rk.
C. Ray
St. Pierre Bank
C. Race
Grand Bank
Flemish Cap.
G
A
F
E
D
Legend
Where
○ Positions ∧ Petrels have been sighted.
● Obsns at which max: numbers have been estimated at +2 doz (E of Long. 35W) or where Petrels have appeared to be numerous (W. of 35W)
△ "Empress of England" - British S.P. on board.
Tracks in use.
D 15th Feb. - 10th April
E 11th April - 15th May, 1st Dec - 14th Feb. } also C. Race - C. Wrath
F 16th May - 30th Nov.
G June/July - Nov. (When clear of ice) & Belle I. - C. Wrath.
C.F. Aikman.

BIRD LIFE ON ST. PAUL'S ROCKS

By Surgeon Lieutenant R. S. Mackinnon, R.N. (H.M.S. Owen)

The following report is compiled from notes made by Surgeon Lieutenant R. S. Mackinnon, R.N., who landed on the St. Paul's Rocks from H.M.S. Owen on 25th November, 1960.

The group consist of one large rock about five hundred feet square, rising to a height of sixty-four feet, and several smaller low rock shelves.

Three species of birds were found here, Brown Boobies *(Sula leucogaster)*, Common Noddies *(Anous stolidus)* and White-capped Noddies *(Anous minutus)*.

The Brown Boobies were very dark above, with the usual white underparts. In all adult birds the beak was pale orange, fading to yellow at the base. The feet varied from yellow to lime green. The immature birds had dappled grey breasts and underparts, with dirty grey beaks and pale muddy orange feet. The Boobies' nests were scrapes in the rock, sometimes built up with stones, and lined with feathers and crumbling guano. Only one young was ever observed on each nest.

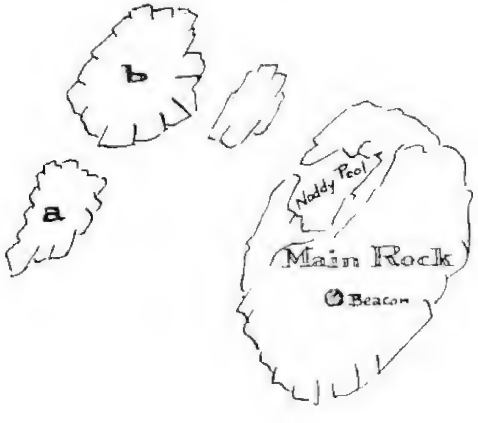
The Common Noddies had sooty brown plumage, fading through lavender grey on the rear of the crown to pure white on the forehead. The feet and bill were black. No sign was seen of the yellowish webs to the feet mentioned by Alexander.

The White-capped Noddy was a slightly smaller and noticeably blacker version of the Common Noddy, with a more clearly defined cap.

Both Noddies' nests were similar to the Boobies', but the general impression given was that they took a little more care over building it than the Boobies.

The Boobies and Noddies nested in different, though sometimes adjacent areas. Occasionally a Booby would be found nesting amongst Noddies, but never the reverse.

Standing in the water in a shallow pool on the main rock were

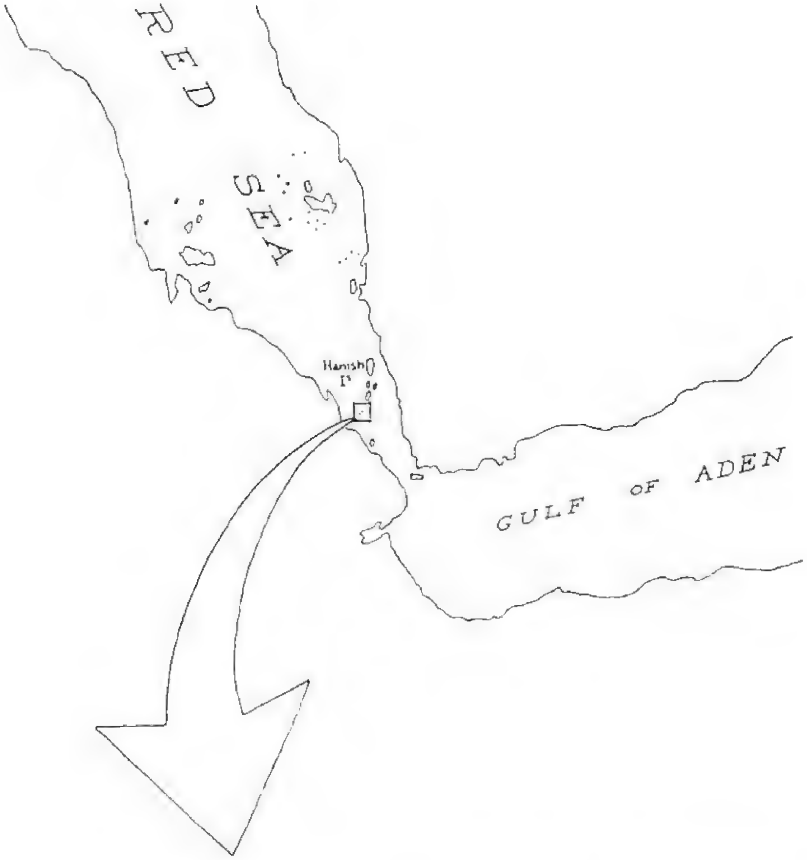


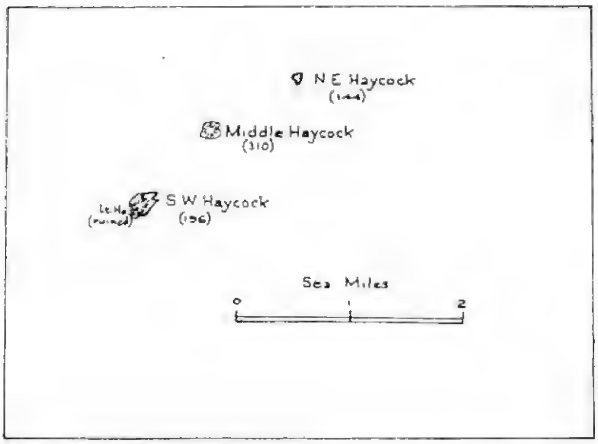
COMMON NODDIES—ST. PAUL'S ROCKS

about a hundred Noddies, mostly Common, all facing in the direction from which a wave every so often broke over the rocks separating it from the sea.

All the time birds, particularly the immature Boobies, were taking wing, flying round, and landing. For this reason, and also due to the inaccessibility of parts of the rocks, the numbers given below are no more than an indication of the total number of birds present. Similarly, and with the added difficulty of spotting nests when unoccupied, the numbers of nests is certainly many more than those noted.

	Main Rock	*Rock a*	*Rock b*
BROWN BOOBY			
Total	140	15	8
Nests	45	3	
COMMON NODDY			
Adults	280	50	150
Nests	5		
WHITE-CAPPED NODDY			
Adults	120	15	30
Nests	15		


RED
SEA
Hanish
I.
GULF OF ADEN


N E Haycock
(144)
Middle Haycock
(310)
S W Haycock
(196)
Sea Miles
0
2

TWO VISITS TO THE HAYCOCKS

(Hanish Islands, Southern Red Sea)

By Lieutenant R. O. Morris, R.N.

FIRST VISIT

On 4th November, 1961, H.M.S. Owen stopped for a day at the Haycocks to carry out surveying work.

The group consists of three rocky islets, between 140 and 310 feet high, all now uninhabited. On S.W. Haycock are the ruins of a lighthouse and of the keeper's house. The other two islets show no signs of any previous occupation. Parties from the ship landed on all three islands.

Flying round the ship as she approached the islands were large numbers of Brown Boobies *(Sula leucogaster)* and a few Blue-faced Boobies *(Sula dactylatra)*, together with some Red Sea Black-headed Gulls *(Larus leucophthalmus)*.

Brown Boobies were breeding in large numbers on N.E. and Middle Haycocks, and in smaller numbers on S.W. Haycock. On N.E. Haycock a few Blue-faced Boobies were nesting. Young in all stages from newly hatched to downy but large and independent nestlings were also seen.

Adult and immature Red Sea Black-headed Gulls were present on all three islands, but no nests were found, unless some curious patches on S.W. Haycock were deserted nests. On ledges and pinnacles half way down a fifty-foot cliff were small but intense patches of white guano, as though a bird had been in the habit of perching there. No birds were seen to visit these patches in the two and a half hours we were on the island. The adult birds were definitely slaty grey and not brown above, with the blackish head divided from the mantle by a thin white band across the hind neck rising from the white of the breast.

A considerable number of Red-billed Tropic-Birds *(Phaethon aethereus)* were flying about between and close to the islands, but none were seen on the ground.

Ospreys *(Pandion haliaetus)* were observed circling over N.E. and S.W. Haycocks. It is almost certain that these were two different birds.

On N.E. Haycock a bittern-like bird, about two feet tall and slaty grey all over, was seen. On being approached it hopped away, and made no attempt to fly. It is thought that this may have been a Red Sea Green-backed Heron *(Butorides brevipes)*.

Several small Sandpipers of inconspicuous brown appearance were seen by the water's edge. They bobbed in the characteristic sandpiper fashion, but did not permit close enough observation to identify their species.

SECOND VISIT

On her way home in May 1962 H.M.S. Owen paid a second brief visit to the Haycocks to finish the work begun in November.

When approaching the islands it soon became apparent that there were considerably fewer birds about than last autumn. There were a similar number of gulls, this time certainly also Aden Gulls *(Larus hemprichi)*, but only a few Brown Boobies and even fewer Blue-faced Boobies.

Once again we landed on all three islands, but this time found no breeding birds at all. On S.W. Haycock there were a few young

Brown Boobies, spending most of their time on the rocks, very reluctant to take wing on our approach and somewhat uncertain of flight when they did.

There were still several Red Sea Black-headed Gulls on the rocky shores of S.W. Haycock, distinguished from the Aden Gulls round the ship by their heads and mantles being black and grey, not shades of brown, and having much more white round their eyes. No Aden Gulls were seen ashore, and no Black-headeds round the ship, which was anchored a mile north-west of Middle Haycock.

The Ospreys were still present—I saw both over the lighthouse on S.W. Haycock, and on the same island were a pair of Sooty Falcons *(Falco concolor)*. The two birds were exactly alike; small, swift, elegant falcons, dark slate all over, with bright red legs and yellowish bills and ceres. They spent most of their time flying swiftly low over the rocky surface of the island, occasionally settling for a few moments on a ledge or rock.

A solitary brownish pelican was in residence on the rocky ledge round the base of N.E. Haycock, spending almost all the day standing in one spot on a ledge about four feet above water.

Only one Tropic Bird was seen, flying round S.W. Haycock. This bird did not come close enough for us to be sure whether it was a Red-billed like the ones present in November.

NEW MEMBERS 1961/62

ALEXANDER, T. J.	E.A. IC., H.M.S. Centaur.
BONNEY, F. D.	Captain M.N., M.B.E., s.s. Clan Macinnes (Clan Line Steamers Ltd.).
CHARLES, R. T.	Lieutenant R.N.R., H.M.S. Pembroke (Medway Towns Sea Cadet Corps).
CUNNINGHAM, W. A. J. ...	Lieut. Commander R.N.R., T.S. Viking (Stornoway Unit Sea Cadet Corps).
FORD, P. J.	Sub-Lieutenant (S.D.), H.M.S. Barrosa.
FOSTER, J. C.	Second Officer M.N., R.F.A. Orange Leaf.
GRAY, R. D. G.	Lieutenant R.N., H.M.S. Fulmar (R.N. Air Station, Lossiemouth).
HAWKINS, R. S.	Second Officer M.N., s.s. British Destiny (B.P. Tanker Co. Ltd.).
HOWELL, L. F.	Captain M.N., Marine Superintendent, Shell (Eastern) Ltd., Singapore.
JAMES, G. C.	Writer R.N., H.M.S. Ausonia
JOHNSTON, W. S.	Lieut. Commander R.N. (Emergency), Newton Mearns, Renfrewshire.
LAMB, K. D. A.	Chief Officer M.N., s.s. Sylvania (Cunard Steamship Co. Ltd.).
NEWBURY, R. J.	Naval Airman 1C (Met.), H.M.S. Centaur.
SMEETON, D. G.	Commander R.N., N.E. Area Officer, Sea Cadet Corps Headquarters, York.
WILLIAMS, W. E.	Captain M.N., Harrison Line Ltd.
WORGAN, J. G.	Quartermaster M.N., H.M.T.S. Monarch (British Post Office).

ROYAL NAVAL BIRDWATCHING SOCIETY

Receipts and Payments Accounts for the Year ended 30th November, 1961

1960 £ s. d.	£ s. d.	RECEIPTS	£ s. d.	£ s. d.
160 6 3		Balance 1st December, 1960: Cash at Bank		185 17 5
		Subscriptions:		
	23 17 0	Current year—under covenant	27 7 0	
	45 16 6	Other	46 16 0	
	— — —	Arrears	10 0	
	3 7 0	In advance	3 10 0	
73 0 6				78 3 0
		Donations—		
	3 4 0	Under covenant	3 4 0	
	6 4 0	Other	2 8 2	
9 8 0				5 12 2
17 2 6		Income Tax recovered on 59 members' covenanted subscriptions and donations up to the 5th April, 1961		19 6 10
82 11 0		Sale of Members' Ties (22)		19 18 0
		Other receipts:		
	49 6 6	Sales of *Sea Swallows*	33 12 0	
	4 1 0	Sales of Sea Passage Lists	1 7 6	
	10 0 0	Advertisement in *Sea Swallows*	18 18 0	
63 7 6				53 17 6
— — —		Sales of 1961 Christmas Cards (Receipts to date)		24 6 0
£405 15 9				£387 0 11

1960 £ s. d.	£ s. d.	Payments	£ s. d.	£ s. d.
19 11 0		Postage and Stationery		18 13 6
		Printing:—		
	85 10 0	*Sea Swallows* 1960 (500)	90 5 6	
	9 6 0	Sea Bird Report Sheets (1,000)	6 0 0	
	7 10 0	Bulletins Nos. 47–49	7 10 0	
	– – –	Joining Forms	15 0	
	– – –	Letterhead Sheets	1 15 0	
	9 6	Information Leaflets	– – –	
	1 4 0	Minutes of 1960 Annual General Meeting	1 2 0	
	13 6	Society's Constitution and Rules (60)	– – –	
104 13 0				107 7 6
1 3 6		Expenses of Annual General Meeting 1960		19 0
		Subscriptions:—		
	2 0 0	British Trust for Ornithology	2 0 0	
	1 0 0	Council for Nature	1 0 0	
3 0 0				3 0 0
83 14 6		Purchase of Members' Ties (48)		39 10 6
– – –		Christmas Cards 1961 (1,500) (including postage)		29 6 10
7 12 4		Captain Tuck, R.N.—Reimbursement of loss on sale of Christmas Cards 1959		– – –
4 0		Bank Charges and Cheque Books		2 2 2
185 17 5		Balance 30th November, 1961—Cash at Bank		186 1 5
£405 15 9				£387 0 11

I have examined the above Account with the books and records of the Society and certify that it is correct and in accordance therewith.

19 Fenchurch Street,
London, E.C. 3
6th December, 1961.

R. G. Pegler,
Chartered Accountant,
Hon. Auditor.

ROYAL NAVAL BIRDWATCHING SOCIETY

CENSUS SHEET — SEA BIRDS

(1962)

REF. NO.:— SHEET NO.:—

ACK.:—

PLOTTED:—

YEAR ..... OBSERVER (CAPS) ..... H.M.S./S.S./M.V. .....

VOYAGE/LOCALITY. FROM/AT ..... TO ..... OCEAN .....

This Form is an alternative to the Standard Sea Report Sheet. It should provide information on the distribution of the sea birds without requiring every separate sighting to be entered individually. Each sheet is for use in THE SAME OCEAN OR PORT OF CALL. START A NEW SHEET FOR EACH NEW OCEAN OR NEW PORT. If extra sheets are needed for the same ocean, label sheets 1a, 1b, etc. *COUNT EVERY BIRD SEEN DURING A SPECIFIED PERIOD AND RECORD TOTAL COUNT OF EACH SPECIES.* Always quote P—Positive or U—Uncertain. When possible, additional code letters should be used to amplify reports:— A—adult, I—immature, S—singly, G—in groups, X—flying, W—on water, F—feeding, M—in moult, N—Notes in Part II.

IMPORTANT—USE PART II ON BACK FOR NOTES ON OBSERVATIONS

Serial No.	*Date*	*Period of Observation*	*Noon Position Lat/Long Range/Bng. Land*	*Wind Direction Force*	*Sea Temp. Centigrade*	*Species (Common Name) and Numbers seen during period of Observation*	*Notes on back N*
Ex. 1	.....	To	.....	.....	.....	12 P Northern Gannets (8A, 4I, G, X, F), 35 P Kittiwakes (25A, 10I, X, some M), 1 P Great Skua (X). 3 P Sooty Shearwaters (S, X). 1 U Sooty Shearwater (X).	
		From	.....	.....	.....		

PART II

ENTER BELOW NOTES ON OBSERVATIONS OF THE DIFFERENT SPECIES BY SYSTEMATIC LIST OF SPECIES QUOTED IN FOLLOWING ORDER:— Penguins, Albatrosses, Petrels and Shearwaters, Storm Petrels, Tropic birds, Pelicans, Gannets and Boobies, Cormorants, Frigate birds, Phalaropes, Skuas, Gulls, Terns, Auks.
PLEASE GIVE A *SUMMARY* OF OBSERVATIONS OF EACH SPECIES OBSERVED, giving short description to show how identified, remarks on behaviour, food and feeding methods, moult, flight characteristics, also presence of plankton, whales, fish, oil, etc. *Sketches are best attached separately.*

Ex. Greater Shearwaters	Medium size. Brown above, whitish below flecked grey, darker crown separated from mantle by white collar. Underwings whitish. White marks on upper tail coverts. 32 P records altogether between 20th - 24th October. S and G, mostly flying S.E.
Brown Boobies	Brown breast and white abdomen seen clearly. Unmistakeable. 2 P records on 30th October. Birds shallow diving. 2 whales seen at this time.

SEND COMPLETED RECORD TO—
THE EDITOR, R.N.B.W.S., PRATTENDENS, BURY,
PULBOROUGH, SUSSEX.